# THE AMERICAN ROSE ANNUAL

1930

THE AMERICAN ROSE SOCIETY

# The American Rose Society

TO the best of their ability, the rosarians named below will answer questions from members of The American Rose Society in regard to roses and rose matters.

For convenience and brevity, inquiries should be made on paper large enough to allow space for reply below each question.

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# THE AMERICAN ROSE ANNUAL

# THE AMERICAN ROSE ANNUAL

*THE 1930 YEAR-BOOK OF ROSE PROGRESS*

EDITED FOR THE AMERICAN ROSE SOCIETY BY

J. HORACE McFARLAND, L.H.D.
AND G. A. STEVENS

1930
THE AMERICAN ROSE SOCIETY
EDITORIAL OFFICE
HARRISBURG, PA.

THE American Rose Annual is sent to paid-up members of The American Rose Society, who may also purchase extra copies of the current issue for $2 each. The index to the first 9 volumes may be had for 10 cts.; and back issues may be had by members from the Secretary at $2 to $5 each as long as they are in print. (See list, inside back cover.)

The Members' Handbook is sent once to all paid-up members. Extra copies, 50 cents. It contains lists of members at time of issue, dates of meetings and shows, and other important announcements.

ROBERT PYLE, *Secretary*
West Grove, Pa.

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# A BOWL OF ROSES

By GRACE NOLL CROWELL

*There is no woman who can place*
*A bowl of roses on a shelf*
*Without an inward upward urge*
*To be more beautiful herself.*

*There is no woman who can keep*
*Disorder reigning in a room*
*Where chastely fresh-cut roses shed*
*The light and fragrance of their bloom.*

*Something there is of sun and wind—*
*Of rain—and clean bright summer air*
*Held captive, when a bowl is filled*
*With roses—and placed anywhere—*

*That works a charm on ugliness,*
*And lightens all dark-cornered gloom;*
*A bowl of roses can perform*
*A miracle in any room.*

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# THE AMERICAN ROSE SOCIETY

ORGANIZED MARCH 13, 1899
INCORPORATED JULY 7, 1921

*"To increase the general interest in the cultivation and improve the standard of excellence of the Rose for all people."*

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*Remit to order of The American Rose Society, and address the Secretary*

THE AMERICAN ROSE SOCIETY, WEST GROVE, PA.

*Deceased

# FROM THE EDITORIAL DESK

IN PRESENTING to the members of the American Rose Society this fifteenth successive Annual which the Editors have assembled from the abundant material supplied by these same members, there is an admitted disposition to boast a little, or perhaps we would better "present with pride," which is surely our feeling. In addition to the widespread and concrete rose experiences from the whole world of roses distinguishing this volume, there are features of culture and care here printed that further evidence the disposition of the membership to develop the truth about roses, even when there must be continued indulgence in heretical notions.

But the scientific and research features of the book are unusually important. Hybridizers cannot but profit by the last word on rose chromosomes in Dr. Erlanson's paper, while a whole new world of rose possibilities is opened in Professor Gericke's presentation of the preliminary results of his work in growing roses in water supplied with the requisite elements. The control of rose troubles is made easier and more definite through the articles by Professors Massey, White, and Meyer. Some of the facts thus presented have been developed by the four-year Cornell fellowship to which the American Rose Society has committed itself, and continued support for which is earnestly solicited. Cornell University matches our expenditure, wherefore every dollar contributed for this vital rose research by a member is actually doubled in use.

The broad scope of "Roses Around the World," with the complete and accurate record of "New Roses of the World," join with "The Proof of the Pudding" to provide for our members probably fuller impartial information about the more recent roses than is available anywhere else in the world. Such information should stimulate the spirit of rose adventure upon which real advance depends.

But these forewords must not discount the contents as a whole, which it is impracticable here to review. No word has been admitted to these pages which did not seem to the Editors

of real value in promoting the growth of more and better roses in America.

Economy is sometimes bothersome! To avoid a deficit, it seems necessary to publish the Members' Handbook (in 1929 including 156 pages, and costing about 50 cents each to produce) biennially only, though to every new member the last issue will be mailed when he "joins up." Then the financial necessity of keeping the Annual within the one-pound mailing limit prevents its proper expansion as rose interest grows. From this 1930 Annual, for example, a symposium of seventeen articles on roses in the Central East has had to be omitted because of the inflexible "pound jumps" of the parcel post.

But there is hope! The Trustees have authorized the Editors to begin the issue of "The American Rose Quarterly," which in its paper covers can be equitably mailed as other magazines are mailed. The first issue ought to be published before April 1. In early June should appear the issue giving news as to shows, pilgrimages, etc. Timely quarterlies are expected to follow about September 1 and December 1.

This 1930 Annual appears much earlier than any of its predecessors. The senior Editor here acknowledges the capable and persistent work of his associate to this end, made particularly helpful by reason of a hospital absence of the senior for many weeks after October 30, last.

It may not be amiss here to summarize the rose information included in the successive Annuals, of which this is the fifteenth. A total of 1128 articles have been printed on 2981 pages, illustrated by 488 plates, pictures, drawings and diagrams. This summary does not count the separate items in such symposia as "The Proof of the Pudding."

The Editors ask attention to the advertisements following the text. Only rose and garden items are included, and all are the announcements of dependable tradesmen, to buy of whom is a real help to the American Rose Society, as well as, we believe, an advantage to the buyer.

J. HORACE McFARLAND

*Harrisburg, Pa.*
*February 15, 1930*

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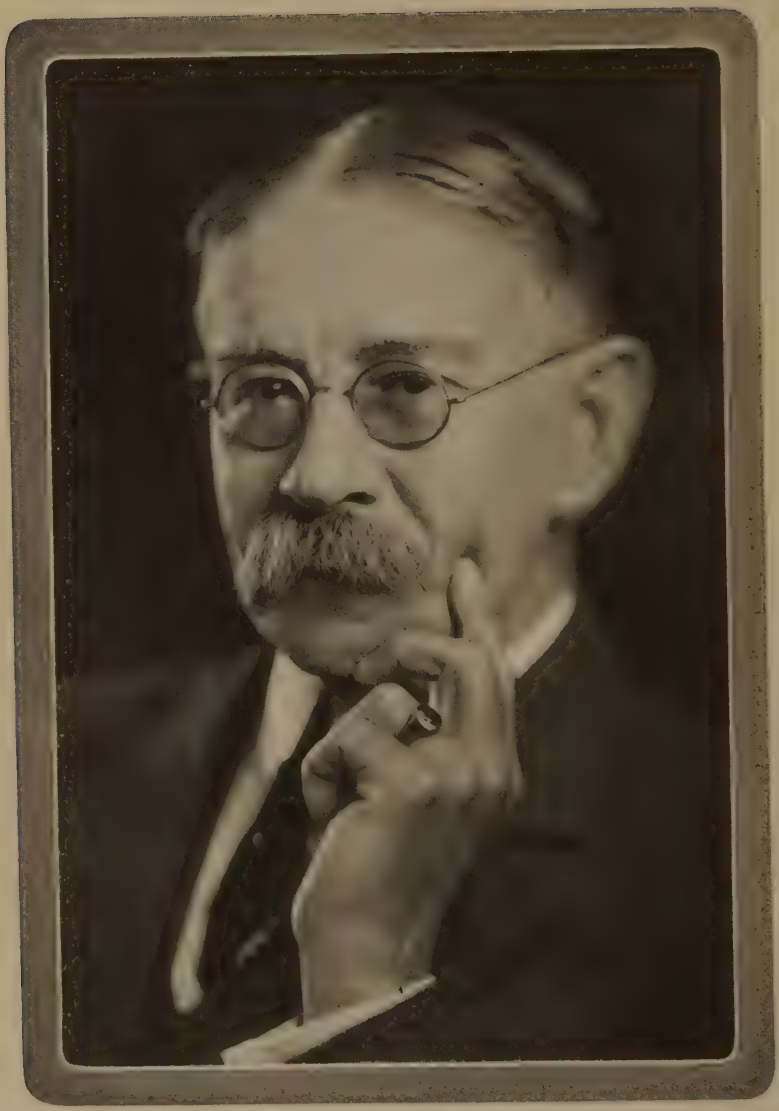

PLATE II. J. HORACE MCFARLAND, L.H.D.
President and Editor, The American Rose Society

# The New President Introduces Himself

IT HAS become the custom for each incoming President of the American Rose Society to "speak a piece" to the members in the Annual. It is the more easy for me to follow this custom because I have been talking through these pages to my fellow members for what will soon be fifteen years of increasingly pleasant intercourse. In the meantime, many thousands of letters have passed between the active and interested amateurs who make up this organization and my desk, so that I feel well acquainted with them. They come back!

Perhaps I may be pardoned a little reminiscence. I restore before me, in memory, the 1915 scene at a meeting of the American Rose Society in the rose-garden in Elizabeth Park, Hartford, when Robert Pyle discussed with me a possible rose annual, and, indeed, persuaded me to undertake one. The local conditions were surely most favorable to consent, because of the beauty of that great garden, and because the importance of roses in the daily civic life was made apparent by the throngs of visitors. My work since 1904 as president of the American Civic Association had made me keenly appreciative of the importance of park attractions.

From the nucleus of a national rose organization then existing—it had less than three hundred members, only a half-hundred of whom were amateurs—there has grown the present great group of rose-lovers in America, joining in profitable intercourse with those the world over.

It was difficult to get helpful expressions about roses for the first American Rose Annual, issued in 1916. That difficulty has long since disappeared, and each year the Annual has an embarrassment of riches in the live, active, helpful, candid comment the members of the Society are now glad to provide. Indeed, the fourteen Annuals I see near my desk as I write constitute a true rose encyclopedia, without duplication, and of real encyclopedic value because they include the experiences of more than a thousand working and interested rose-lovers.

From its first issue, the Annual has been held almost exclusively to original material, with a minimum of "reports," "proceedings," and the like. It has not been a "scrap-book"!

### WE HAVE MANY RESEARCH WORKERS

In a remarkable way the membership of the American Rose Society has developed a spirit of research, a willingness to disregard precedent, and a strong desire to promote rose-growing wherever a rose will grow. This is very much as it should be. The present necessity is to organize this desire for more roses so that the rose may truly become universal in American gardens and dooryards, and to fully support, by contribution, the Society's joint effort with Cornell University to extend knowledge and control of rose diseases.

### MANY MORE MUNICIPAL ROSE-GARDENS

The last Members' Handbook gave information about many existing and projected municipal rose-gardens. I desire to ask my member-friends to approach the problem of the municipal rose-garden locally on the basis of its proved civic value. All thoughtful Americans realize that the problems of law observance and good order are of paramount importance. Not enough good citizens understand that our great need is to interest citizens in their hours of leisure. The experience of Hartford (above referred to) is that the municipal rose-garden in Elizabeth Park has long entertained visitors annually at the rate of more than 70,000 to the acre. For every hour spent in a municipal garden, it is safe to assume that several hours will be used at home or in rose conference with others. In any modern city beginning to realize its real park responsibilities, a member of the American Rose Society may well urge that the establishment of a municipal rose-garden is true civic economy.

While public-spirited citizens may well help, and could in any case see to it that the last word of progress is used in the planning and maintaining of such gardens, their establishment and support are nevertheless a wise municipal expenditure. Reference to the Members' Handbook will show that many existing municipal rose-gardens are thus maintained.

Particularly I have a desire to see established not only many

new rose-gardens of wide scope, with a large number of roses in each, but, even more important, thousands more of little rose-gardens, back-yard rose-gardens, odd-corner rose-gardens. When one considers what a beautiful display can be had from one climbing rose planted in a corner, and how easily a few Polyantha or Hybrid Tea roses will transform a neighborhood if planted as an example, it does seem that we have not yet scratched the surface in America of the civilizing possibilities the rose offers us.

### ARE WE AS BIG AS WE CAN BE?

I find it impossible to believe that the American Rose Society has reached its maximum membership at 5,000, while our big sister in England, the National Rose Society, keeps on increasing beyond its 15,000. We of the elected management do our best, at no financial compensation, to serve well the rose spirit in America. Is it too much to ask, and indeed expect, each member to become a "committee of one" to increase the Society's effective membership? The fee is trifling, compared with the advantage provided in rose and social betterment.

### THE "PROOF OF THE PUDDING" AGAIN

In this 1930 Annual a return has been made to "The Proof of the Pudding" feature, because of the vigorous demand for that form of concrete and definite rose experience. I urge that during this year of 1930 every member make the observations and records necessary to continue and extend this important feature. To do it he must, of course, have his roses named, and that is just as important in a rose-garden as it is in a family. No one would think much of the fond parent who would be unable accurately to tell the name of each of his offspring!

### PRIZES AND CONFERENCES

Speaking for the Trustees of the Society, I know I can properly ask for suggestions as to how we shall obtain attention to the several prizes offered for new roses, as detailed on page 33 of the last Members' Handbook. As yet little interest has been manifested in competing for these prizes.

The rose-loving Pacific Coast has set us a fine example in holding a successful Regional Rose Conference. America is so wide and so long and so populous that it seems impossible, even with airplane aid, for us to have a truly national rose show in any sense equivalent to those which result in marvelous exhibitions in London. We can have, and I hope will have, State and Regional Rose Conferences which will bring together, for a public day of observation, discussion, and rose-profit, those within an easy day's journey.

### MANY ROSE MISSIONARIES NEEDED

What I have above written must make plain to my readers my feeling that a static membership is not worth much. Each individual in the American Rose Society needs to be considered as a rose missionary, determined to carry the beneficent influence of the rose to more humans, more homes, more towns. It is not hard to start rose-interest, for tactful rose-talk is always met with an approving smile.

### LIBERALITY IN ROSE-PLANTING

Rose-buying and rose-planting should be considered much as a casual expense, and not a serious capital investment, as in a house. Because roses are considerably frost-hardy in most of America, there has arisen the thought that a rose once planted is quite a permanent thing. It is pleasantly true that many roses do live and improve for many years, but it is also true that constant renewal is the soul of rose progress, particularly in the so-called "everblooming" classes. A new rose costs no more than a box of candy, and not nearly so much as the average theatre ticket. Yet we do not expect the candy-box to renew itself, and the theatre seat is for one performance only. Let us put rose-planting on somewhat the same basis. Let us yield to the lure of the new things and not be tied down to a "preferred dozen" of the world's best-loved flower, missing the thrill that the blooming of the "novelties" always brings.

J. Horace McFarland

# The English Parson as a Gardener

By RICHARDSON WRIGHT, New York City

EDITOR'S NOTE.—Author, traveler, editor of *House and Garden*, and not least, Vice-president of the American Rose Society, Mr. Wright gives us reason for hoping that many American "parsons" may emulate their English brethren.

AT FIRST glance it may seem strange to single out the English country parson from other country parsons as an apotheosis of gardening, yet so constantly do we gardeners encounter names of the English clergy, and so much richer are our gardens for their work, that the subject warrants study.

True, there have been enthusiastic ecclesiastical cultivators of other nations. Not a few of our best plants have been brought back by missionaries, such as Frs. Armand David, J. M. Delavay, G. Giraldi, and D. Incarvillea, whose names recur in several desirable garden plants. Les Abbés Delavay and David first gave the world a glimpse of the floral wonders of central and western China. And we must remember Rev. Hugh Scallan every time *Rosa Hugonis* spreads its golden flowers.

The migration of many plants from China to Japan and their careful cultivation through the centuries may be accredited to Buddhist and Shinto priests. Some of the gardens of rarest beauty in Japan today are those surrounding temples. On many occasions, in the hinterlands of Mongolia and Manchuria, I have come across these oases of floral beauty devoutly tended by the resident lamas. We also owe a great deal to Buddhist and Taoist priests for the preservation of trees, especially the ginkgo, just as we are indebted to French and Belgian religious establishments for many of our best fruit trees.

In Russia, the village *pope* is of necessity a farmer; he tills his share of soil like any peasant and reaps his harvest against the lean months. Time and again, in Siberia, I have watched him at work in the fields—his cassock tucked up into his belt, his wife leading the plow-horse whilst he turned the unbelievably black soil with a coulter that bore the sign and insignia of the International Harvesting Machine Company.

The rural pastor of Scandinavia and Germany, also, is a tiller of the soil, and he works in it what time he can spare out of six days a week with as much fervor as he thunders theo-

logical maledictions the seventh. We have all seen, those of us who know rural Italy and France, the local padre working in his patch of garden among his neat rows of vegetables and devoutly tending the flowers that he saves especially to place at the foot of the Virgin's statue. The Spanish missionary in our own Southwest and Pacific Coast brought helpful notions on growing crops and introduced not a few new ones.

In the face of these international evidences of the country parson as a gardener, we might appear prejudiced in giving the British so much praise were it not for the fact that from the very beginning of its church's history up to today, horticulture, botany, and floriculture have recruited outstanding leaders from the British clergy. Never content with being merely super-peasants, when they undertook the cultivation of the soil they became leaders in the work. A brief survey of the evolution and vicissitudes of the British country parson will show how this came to pass.

## I

Among the studies required of the Saxon parson was a knowledge of medicine, and this involved an understanding of medicinal herbs, their cultivation, and preparation for use. They were schooled in what Solomon calls "The diversities of plants and the virtues of roots." In many districts, these monks were the only physicians and apothecaries available. The monastery garden was usually walled. Here were grown vegetables and the medicinal herbs. The orchard was a necessary adjunct, but not until the sixteenth century was there any division made between forest and fruit trees; the two were grown side by side. However, the best orchards of the time were found not in monasteries but in castle grounds. Flowers were grown in a Pleasaunce or Garden of Pleasure. In the monastery this took the form of a quadrangle surrounded by cloisters. At the crossing of the middle paths was usually a circular pool. These three—the Herb and Vegetable Garden, the Orchard and the Pleasaunce—were the divisions of the Saxon garden, and while it is not conceivable that the solitary parson could reproduce all of them when he settled down in an isolated parish, it is fair to assume that he grew vegetables for his own

use, a few flowers for altar decoration, and quite a quantity of medicinal herbs for the cure of sickness. This rôle of the English parson as apothecary and doctor continues up to the threshold of our own times.

The mediæval parson derived benefits from a source his Saxon predecessors did not enjoy. In this era the church drew much of its income from glebe lands—lands given the church and from which it derived a tithe of the produce, many parishes having tithe-barns in which the church's share of harvests was stored. Some of this land was set aside for the parson's personal use, and in it he continued his horticultural and medicinal labors. His herb-garden was still an important feature; in fact, ecclesiastical herb-gardens continued well into the seventeenth century. By the latter half of the sixteenth century some attempt was made at artistic arrangement and methodical distribution of the plants, trees, and shrubs in gardens.

Just how much time the Saxon and mediæval parsons could spend in their gardens is difficult to say. Their day usually began at 6. They said Mass and Matins and Evensong for the people, together with their regular breviary offices; they taught and catechized the congregation, visited the sick and needy, counseled the troubled and afflicted, and fought for the rights of the downtrodden. These shepherds had no expansive hours of leisure; the few moments they could spare in their gardens must have been very precious indeed. Nevertheless, we find them not only cultivating their own patches of the glebe but helping fell trees and drain swamps as well.

The Elizabethan parson had a hard time of it. With the spoliation of the Church under Henry VIII, much of its glebe acreage passed into lay hands. The standard of learning among the clergy dropped to the depths and their material position was pitiful indeed. Under the Puritan régime the lot of the Loyalist clergyman became even harder. Either his living was snatched from him or, in sheer desperation for food and shelter, he attached himself as chaplain to the house of a Loyalist gentleman where he served as everything from children's tutor to gardener and groom. Under the new régime he acquired a helpmate, and his wife was usually a servant or little above the servant class. These "trencher chaplains" persisted up to the

beginning of the eighteenth century. Macaulay has drawn a devastating—and unfair—picture of the rural clergy of these times in the third chapter of his "History of England."

Under the Restoration, the English clergy took a new lease on life. Gentlemen's sons once more went into the church. This period saw the rise of some of the most famous and colorful figures in England's history. Two of them contribute picturesque glimpses to our study of gardeners—George Herbert and William Baxter, the one as fine a gentleman and poet as ever graced the Cloth; the other a vivid preacher and writer who is remembered by old-fashioned people for his "Saints' Rest" and other pious books.

In his "Country Parson," George Herbert suggests that every rural minister "should see at least one Anatomy, read one Book of Physics and have one Herbal by him. For," he says, "home-brewed medicines are both easie for the Parson's purse and more familiar for all men's bodyes . . . So where the Apothecary useth either for loosing, Rhubarb, or for binding, Bolearmener, the Parson useth damask or White Rose for the one, and plantaine, shepherd's purse, knot-grasse for the other, and that with better success." He also suggested that the young parson save the best fruit from his orchard for guests, which indicates that the orchard was a favorite part of the parson's garden in those days.

George Herbert's garden at Bemerton still exists, although it has been questionably improved by a rockery introduced by a late incumbent. It contains a medlar that Herbert planted. At the garden's foot flows the Wiley River, and, standing on its banks, one can look across the meadows to the spire of Salisbury Cathedral, where Herbert used to walk to play his lute. However, George Herbert was a better musician than gardener.

Another example of the British parson as herb-specialist and doctor in this era is found in Baxter's diary: he recounts having as many as twenty patients at his door at one time.

By the seventeenth century the lot of the rural clergy was improving. The parson became a man of affairs in the village and a leader in its best endeavors. That century saw the rise of a prodigious number of clerical authors. The seventeenth-century parson was given to writing and publishing his life, his

sermons, and his pious sayings. No one would dream of reading them nowadays; they are thoroughly dead. Occasionally one of them ventured into history and horticulture.

The eighteenth-century country parson, on the other hand, wrote fewer biographies and volumes of holy discourses and turned his attention more to archeology, local history, theology, and local floras. An example of the last is the Rev. J. Lightfoot's "Flora Scotica," a study of the native plants of Scotland and the Hebrides, 1777, still a standard work. By the eighteenth century the rural parson may have ceased being a dispenser of herbal potions, but his day was no less filled with pastoral duties and leisure no less precious to him than it had been before. Of course, the lazy parson was common enough, and there were picturesque hunting parsons and fist-fight parsons galore in this period, but the zealous, benevolent, and industrious shepherd of his sheep was no rarity.

Among eighteenth-century parsons two stand out as unforgettable figures for their contribution to science: the Rev. Gilbert White, of Selbourne, and his neighbor in the adjoining parish of Farringdon, the Rev. Stephen Hales (1677–1761). White's "Natural History of Selbourne" all good gardeners know—or should know—but Hales' work seems to have been overlooked until, within the past few months, his biography appeared. A priest of great devotion to his flock, a man of many scientific and humanistic interests, he attracts us especially for his study of the functional activity of plants—plant physiology as it is now called—and his work is standard today. He measured the pulsation and amount of sap almost 200 years before Sir J. C. Bose began his vivid experiments in India, and his studies in botanical physiology led to his measuring human blood-pressure, investigations that form the basis for our present-day studies in quantitative animal physiology.

To catch a glimpse of an eighteenth-century gardening parson let us turn to the diary of the Rev. Samuel Woodforde (1740–1803) who kept a daily record of his doings from 1758 to his death. He was rector of Weston, in Norfolk, most of the time. His days were filled with pastoral works and his nights with playing cards, nevertheless he found occasion for gardening, and, almost invariably when he mentions it, he describes himself as

"very busy." Here are some of his entries: "July 13, 1781. Walked over garden with Mackay, a gardener from Norwich, and told him how to preserve his fruit trees from ants by washing with soap suds." "October 5, 1781. Mr. Charles Townsend, of Huntingdon, called on me this morning about 11 o'clock and walked around my garden with me. He caught me on the hop, busy in my old garden clothes, old Wigg and hat" —which proves that even the eighteenth-century parson was no stickler for styles in gardening costumes. "October 15, 1787. Very busy in my garden this morning making some new Strawberry beds" . . . "February 6, 1788. Very busy all the morning, being very fine weather, in trimming up my young Scotch Firs" . . . On March 20, 1790, he puts cucumber seeds into a hotbed and on July 1 is very busy making alterations in his kitchen-garden and on May 11, the next year, has newly graveled his large front walk, after which, a fortnight later, he removes two stunted larches that were spoiling the looks of his front door. He records when his grass was mowed—the second time on June 8; of course this was hand-mowing with a heavy scythe—and says he is "very busy" all morning cutting weeds or trimming his geraniums. On Feburary 12, 1787, he proves himself a big-tree mover, for he writes, "I sent Ben this morning with my great cart to Mr. Du Quesner after a large Walnut tree to transplant into my garden—which we did directly. It was planted well and supported with three stakes. I wish it might live, but have some doubt of it as it is so large and the roots injured much." How many of us have had just those same fears!

Mr. Woodforde was not exceptional in any respect; he represents the average and furnishes us with the pleasant picture of the minister as a country gentleman. Countless hundreds of them were just such gardening parsons as he.

Very few left records of their horticultural labors. Such as we have, however, are amusing and instructive. Space limits me to mention of only three. These three lived in Sussex and are rated among the most picturesque of the Sussex diarists. The Rev. James Clegg, Non-Conformist parson of Malcalf, kept a diary from 1701 to 1755 and was an energetic gardener and local physician. The Rev. George Ridpath (1717–1772),

rector at Stichel, tells again and again how he "wrought much in the garden" and how he planted his tulips and ranunculus. Mr. Ridpath also seems to have had an eye for the girls. The most picturesque of all was the Rev. Giles Moore, rector of Horstead Keynes, whose diary is a mine of local color. He labored in his glebe, kept up his garden, harried his people for tithes, went to cockfights, and drank prodigiously. Among the many items in his diary is one of December 26: "I gave the howling boys 6 pence." This was for wassailing the orchard, a Christmas custom in Sussex, Devon, and Herefordshire. Village lads grouped in a ring around the tree, hit it with their sticks, and whilst one played a raucous accompaniment on a cow's horn, they sang the incantation—

Stand fast root, bear well top,
Pray the God send us a good howling crop.
Every twig, apples big,
Every bough, apples enow,
Hats full, caps full,
Full quarter sacks full.

In addition to these diarists, there were others who made distinct and great contributions to the lore and practice of horticulture and botany. A survey of English gardening and botanical literature shows some amazingly important books. The ascendency of the English country parson as a gardening authority can be traced in this bibliography.

## II

Many of the early herbals were monastic compilations or co-ordinations of medicinal lore as taught in monasteries, and the earliest English writers on this subject were churchmen. Thus, Alexander Necham, Abbot of Cirencester (1157–1217), wrote "De Laudibus Divinæ Sapientiæ," a poem in ten parts—much of it devoted to herbs and flowers—and "De Naturis Rerum" in which he described the ideal garden and its plant material. Another of these earliest parson writers was Grosseteste, Bishop of Lincoln (1175–1253), who wrote many books on herbs and husbandry which were standard works for two centuries. Among other wonders, he explained how apples could be grown without cores and cherries without stones!

By the sixteenth century this clerical horticultural authorship began to be more pronounced. We shall consider it by the dates when the books appeared:

1538. "Libellus de Re Herbaria," and, ten years afterward, "Names of Herbs," both by Rev. William Turner, Dean of Wells. He also wrote the first real English "Herbal," it appearing in two parts in 1551 and 1562. Turner's garden was at Kew. As he was a Reformer, his books were banned and condemned to destruction during Mary's reign, and he was forced to flee to the Continent. While in exile in Italy, he received his degree of Doctor of Medicine.

1650. "Improvements to the Art of Gardening," by the Rev. Robert Sharrock, Archdeacon of Winchester and rector of Bishop's Waltham, Hants.

1672. "A Short and Sure Guide in the Practice of Raising and Ordering of Fruit Trees," by the Rev. Francis Drope.

1683. "The Florist's Vade Mecum," by the Rev. Samuel Gilbert, rector of a village church in Shropshire and chaplain to Lady June Gerara, Baroness Bromley. He was physician as well as pastor, and later married the daughter of John Rea, a distinguished botanist of the time. His book, incidentally, is dedicated to the "Rev. Father in God, James, Lord Bishop of Worcester, the greatest florist among the chief pillars of our church." Evidently the rector "said it with flowers" in those days. Gilbert's two favorite flowers were irises and auriculas. In fact, he was such a primula enthusiast that he confesses to having paid £20 for a single root—no insignificant price in 1683.

1701. "Curiosities of Nature and Art in Husbandry and Gardening," by the Rt. Rev. William Fleetwood, Bishop of St. Asaph and later Bishop of Ely.

1706. "Rapin of Gardens," a Latin poem in four books, translated by the Rev. James Gardiner, who must have found inspiration in his own name.

1714. "The Clergyman's and Gentleman's Recreation, Showing the Pleasure and Profit of the Art of Gardening," by the Rev. John Lawrence. This book went through five editions in three years, from which we may surmise that many of the clergy bought it. John Lawrence was rector of Yelverloft in Northamptonshire from 1703 to 1721, when he moved to the rectory of Bishop's Wearmouth in Durham. In 1723 he became prebendary of Salisbury. In addition to "The Clergyman's and Gentleman's Recreation," he wrote "The Lady's Recreation in the Art of Gardening," "The Gentleman's Recreation," "The Fruit Garden Kalendar and Paradise Regained, or The Art of Gardening," a poem. He was accused by his publisher of rehashing one of his old garden books and publishing it as new, calling it "The New System of Gardening." Mr. Lawrence testified that working in the garden was "the best and almost only physick" he took, which was saying a great deal, for his age.

1716. "The Young Gardener's Director" and "The Gentleman Gardener Instructed," by the Rev. Henry Stevenson. The latter book went through six editions in fifty years, which is more than can be said of most of the gardening books published in the last fifty years.

1732. "A Sermon on Gardening," by the Rev. William Harper, who two years later wrote "The Flower Garden Displayed," and lived to see it through two editions.

1746. "The Gentleman Gardener Instructed," by the Rev. David Stevenson.

1758. "An Essay on Planting," by the Rev. William Hanbury who, two years later, wrote a "Complete Body of Planting" and "The Gardener's New Kalendar." He was rector of Church Langton in Leicestershire. During his residence there he planted 50 acres to nursery stock, the proceeds of which he used for the improvement of the church and parish.

1764. "Essays on Husbandry," by the Rev. Walter Harte, Canon of Windsor, who wrote three other gardening books besides.

1770. "Institutes of Botany" and "A Botanical Dictionary," by the Rev. Colin Milne. His dictionary, by the way, reached its fourth edition in 1805. He was rector of North Chapel, Essex.

1771. "The Garden Companion," by the Rev. John Trusler.

1772. "A Modern System of Natural History," twelve volumes, and, five years later, "The Natural Situations of Gardens," both by the Rev. Samuel Ward.

1786. "Methods of Planting, Trimming and Managing all Kinds of Fruit Trees," by the Rev. Philip Le Brocq, who three years previously had composed "A Complete Herbal or Family Physician."

1796. "Introduction to the Knowledge and Practise of Gardening," by the Rev. Charles Marshall, a book that ran through three editions.

This list, which by no means records all the garden works by English clergymen, brings us to the threshold of the last century. It will be seen that, except in the instance of one or two books on fruit, these were general works on gardening. With the nineteenth century the English parson gardener begins to specialize, and, as a specialist, becomes a distinctive figure on horticulture. We shall consider him, hereafter, under the classifications of his specialties.

## III

The student of bulbous plants, having paid his devoirs to Gerarde and Parkinson, skips a century or so and encounters the Hon. and Rev. William Herbert who, while he was rector of Spofforth, in 1836, wrote "Amaryllidaceæ," the greatest work in English on this subject. He also was famous as a hybridist; as early as 1824 he records thirty hybrid hippeastrums which he had created. E. H. Wilson calls Dean Herbert, "The Father of Plant Hybridizing." He became Dean of Manchester.

In his search, the student of bulbous plants will also encounter the Rev. James Tyso, of Wallingford, the last great cultivator and seedling-raiser of ranunculus. Those were the days—in the first quarter of the last century—when one British catalogue listed 800 varieties of this tuber.

We will then drop down to our own century and find "The Books of the Daffodil," 1903, by the Rev. S. E. Bourne, and "Hardy Bulbs for Amateurs," "Daffodils," and "Tulips," all three by the Rev. Joseph Jacob. This past spring appeared "Daffodil Growing for Pleasure and Profit," in which the

narcissus work of the Rev. George Herbert Engleheart, Rector of Dinton, is generously set forth. For forty years Mr. Engleheart has been hybridizing "daffies," and has given us such varieties as Firebrand, Beacon, Oriflamme, Will Scarlett, and Horace. During the past nineteen years the Royal Horticultural Society has awarded Mr. Engleheart no less than forty-eight prizes for his narcissus creations. In this same group of clerical workers in bulbous plants should also be placed Canon Henry Nicholson Ellacombe, rector of Bitton, and author of that delightful book, "In a Gloucestershire Garden," and the Rev. F. D. Horner, hybridizer of tulips.

Those of us who are rock-gardening zealots have had the assistance of the Rev. F. Anderson, of Glen Hall, Leicestershire.

Among the workers in irises was the Rev. Henry Ewbank, for whom was named the mauve Darwin tulip which is a commonplace today. Mr. Ewbank did splendid work in Oncocyclus iris, that difficult Near East group which is the despair of iris fanciers. Today one of the leading spirits in the English Iris Society and one of its most successful exhibitors is a parson, the Rev. Rollo H. Meyer, of Walton Rectory, Hereford.

When we come to roses, the English parson fairly shines. The National Rose Society, started over fifty years ago, has included among its officers such men as Dean S. Reynolds Hole, the Rev. H. Honeywood D'Ombrain, J. H. Pemberton, A. Foster-Melliar, F. Page-Roberts, T. G. W. Henslow, F. R. Burnside, H. S. Arkwright, J. B. Shackle, and W. Wilks—all giants. It seems fitting that men who stand for the highest ideals in the community should so devote their energies to the Queen of Flowers. Dean Hole, Foster-Melliar, and J. H. Pemberton all wrote delightful and instructive rose books. Many of them were rose hybridists, Pemberton especially working with *Rosa moschata*, the Musk rose, to create a group of hardy blooming climbers that bears his name. For a time the clergy seem to have cornered rose affairs; in the introduction to Foster-Melliar's book it is amusing to note that he thanks no less than four other dominies for their assistance. His garden was at Sproughton, near Ipswich, where he was rector for twenty years. The master of them all, of course, was the beloved Dean Hole, of Rochester, whose "Book About Roses"

opens with that noble statement which has ever since been the ideal of rosarians: "He who would have beautiful roses in his garden must have beautiful roses in his heart."*

Of course, the British parson can always be counted on to write of local flora, whether he be quietly settled in an English village or on some isolated missionary outpost. Examples of such books of flora—and good, dependable books they are—would be: "Flowering Plants, Ferns and Allies of Harleston," by the Rev. F. W. Galpin, 1888; and "Flowers of Peitaiho," by Dean R. Wickes, 1926. Another standard flora book by a parson is "Flowers of the Field," from the pen of the Rev. C. A. Johns. The most concentrated flora, I suppose, and one of the most curious, would be that written by the Rev. T. Bailey, Sub-Dean of Wells, who while he was imprisoned in Newgate in 1650 wrote "Herba Parietis: or The Wall Flower as It Grew Out of the Stone Chamber Belonging to the Metropolitan Prison of London, called Newgate."

To the late Rev. William Wilks, rector of Shirley in Cornwall, must go the palm not only for hybridizing but for being a great horticultural executive as well. Our gardens are richer for Shirley poppies and Shirley foxgloves, both his creations, and both named for his parish. But even more are we indebted to him for his great work in building up the Royal Horticultural Society, the most active and influential organization of its kind in the world today. He was its secretary from 1880 to 1920, and in those forty years brought it up from a weak, inactive group to the great association it is today. Doubtless due to his influence, many gentlemen of the Cloth were induced to become practising gardeners; certainly the membership of the Royal Horticultural Society bristles with their names. I cannot say definitely what they total among the 26,000 members, since in the membership lists the clerical title is not always used, but among the new Fellows elected to membership during the past five years whose profession I could trace, fifty-one were clergymen. Of the sixty-two men holding the Victorian Medal of Honor for distinguished horticultural achievement

*Mr. Wright does not mention Dean Hole's literary profusion, all alight with plant-love. "Our Gardens," "Then and Now," "The Six of Spades," are as charming as his better-known rose book. He made a "A Little Tour in America" with better humor than Dickens, as well as "A Little Tour of Ireland." "The Letters of Samuel Reynolds Hole" are what one might expect in genial and whimsical brilliance.—EDITOR.

two are clergymen; of the ninety-nine who have held it since its founding, five were in the Church.

These figures suggest others, and from them we may draw some rather interesting conclusions.

## IV

While collecting data for this paper, I made a point of asking garden enthusiasts and students of garden history their opinion on why the English parson makes such a good gardener. Almost invariably they answered, "Because he has so much leisure." This seemed a plausible explanation until I began reading the lives and diaries of some of these gardening parsons, and until I began classifying the memberships in our various horticultural and flower societies according to professions. If the British parson has the leisure to garden, I wondered, why doesn't his American counterpart enjoy the same recreation and exert the same influence in the horticultural world? Here are the figures:

The Massachusetts Horticultural Society lists 18 parsons and 82 doctors; the Horticultural Society of New York, 1 lay brother, 32 doctors; the Pennsylvania Horticultural Society, no parsons, 38 doctors; the American Iris Society, 3 parsons (one of them English), 49 doctors; the American Rose Society, 16 parsons, 130 doctors; total in five societies, 38 parsons, 331 doctors.

Of the sixty-eight botanists and horticulturists listed in "Appleton's Cyclopædia of American Biography," two were trained for the ministry, thought better of it, and never practised the profession. "Bailey's Standard Cyclopedia of Horticulture" does better—he lists three American parson gardeners. One was Henry Ward Beecher who, while a pastor in Indianapolis, also edited an agricultural journal called *The Farmer and Gardener*, his contributions to it being published in 1859 in a book called "Plain and Pleasant Talks About Fruits, Flowers and Farming." The second was the Rev. Robert Burnet, for twenty-six years minister at St. Andrews, Hamilton, Ontario, who had an excellent garden there, served for ten years as president of the Provincial Fruit Growers Association, and wrote several excellent essays on fruit. The third member of this lone American-parson-gardening trinity was the Rev.

PLATE III. The late JOHN COOK, at his home in Baltimore, Md., a few days prior to his ninety-sixth birthday

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PLATE IV. Rose Personalities in Spain

*Top.* Mons. Charles Mallerin, Mme. Mallerin, Señor Nicolas Rubió, Señora Dot, and Señor Aldrufeu in the Royal Gardens of Pedralbes, Barcelona.
*Center.* Mons. and Mme. Mallerin and Señora Dot at Pedralbes.
*Bottom.* Señor Pedro Dot (behind the statue), Señora Dot, and their son Simon, with Mons. and Mme. Mallerin in the Roserie of Mme. Lí Burés.

Samuel Dean (1733–1814), vice-president of Bowdoin College and pastor at Falmouth, Maine, who, in 1790, wrote "The New England Farmer or Geographical Dictionary," the first American encyclopedic work on horticulture, which continued its service and influence till the middle of the last century. In the world of peonies there have been two influential American parsons—the Revs. J. Wesley Earnshaw and C. S. York; and in the rose world we can recall only two of the clergy influential today—Dr. E. M. Mills and the Rev. S. S. Sulliger. Save for these few examples, I can find no record of an American parson making any distinguished contribution to horticulture.

Among the professions listed above were doctors—331 of them as against 38 parsons—and we must concede that doctors are not men with infinite leisure. So the statement that the English parson makes a good gardener because he has a lot of loose time on his hands is easily downed. If you have known some of these English country parsons, known how full their days are, you realize that the time they have for gardening is limited indeed. Or if you wish definite examples, consider the life and work of three very busy parsons—Charles Kingsley, Canon Ellacombe, and the Rev. Mr. Dawes, Dean of Hereford.

To Canon Ellacombe's vicarage garden at Bitton, in Gloucestershire—a space not much more than an acre and a half—the world made a beaten path: it was the source of inspiration and help to countless gardeners; in their books, E. A. Bowles and Joseph Jacobs are constantly paying tribute to him and his garden. One would naturally surmise that all this worthy canon had to do was read a few services and preach a few sermons—and spend the rest of the time gardening. For a matter of fact, he not only did his pastoral duties well and faithfully but he found time to restore his own church and build three others and to build schoolhouses providing room for 820 children. He became one of the world's great authorities on bells, invented a hammer for chiming them, wrote ten books on bells and antiquities, and three charming garden volumes—"In a Gloucestershire Garden," "The Plant-Lore and Garden-Craft of Shakespeare," and "In My Vicarage Garden."

Charles Kingsley's vast accomplishments, both as preacher and social worker, are too well known to recount. He was

rector of Eversley parish for thirty-three years, made a garden there that became famous, and it is indicative of the man's type of mind that after a full life, when he was appointed Canon of Chester Cathedral, almost the first thing he did was to found a botany class among the clergy and townspeople which later developed into the thriving Chester Natural History Society. You can read of his work in the book his daughter, Rose G. Kingsley, wrote, "Eversley Gardens and Others."

The Rev. Mr. Dawes, Dean of Hereford, used his garden as a classroom, and his parishioners studied botany there.

No, it isn't leisure that makes the English parson a natural gardener. It is the conclusion he reached—the same conclusion that our American doctors have reached and our parsons are sadly missing—that gardening and a love of gardens are essential components of a full, sane, rounded life; that traffic with the soil and the green things which grow from it is one of the noblest associations man may adopt; that to make the wilderness blossom as the rose is a high calling and, under God, a good work. One of them has written, "There is no love so great, save that of a woman, as a man's love for his garden."

There is still another reason why the English country parson often elects gardening as his major sport. His position in the community has always made it desirous that he uphold the dignity of the Cloth. In the introduction to "The Clergyman's Recreation" (1714) the Rev. J. Lawrence, says "This I suppose most people will allow—that there are some sports and exercises not suitable to a divine, so gardening is a very agreeable and commendable recreation." The same sentiment is expressed in "The Manse Garden," written over a century ago by the Rev. N. Patterson, a leading member of the Scotch Free Kirk: "You will find in the very nature of the work a new interest communicated to your life, and which, relieving the pressure of cares and lightening the burden of toil, will tend to no worldliness of spirit." He further shows that having a good garden is part of the parson's pastoral and civic duty. "Thus conferring as well as receiving good, and incurring no evil, let our gardens and every corner of our glebe be adorned; and if we have to lament, on the part of those having large possessions, that too little is done, let us at least set an example though it be but in

the model style, and have our home a paradise of fruit and flowers, of shelter and shade, endeavoring still to make the place the more worthy of ourselves, and ourselves more worthy of the place." In his "Gloucestershire Garden," Dean Ellacombe writes a chapter on "Parsonage Gardens" in which he brings out this same sentiment—that the parson's garden should be the model for the community and that a love of flowers and gardening give the country parson a better introduction to his parishioners; says he, "A country parson without some knowledge of plants is surely as incomplete as a country parsonage without a garden . . . The parsonage gate should always be open and every parishioner welcomed."

There are scores of gardening parsons and their gardens we might recall, but for a final filip let us glance at that eccentric, poetic, salty old Vicar of Morwenstow, Robert S. Hawker. His was a parish on the Cornish coast, where the townspeople made most of their living by smuggling and shipwrecking. Their chief delight was to outwit the customs officers of the Crown. Nevertheless, Hawker soon got them into hand. And having done this, he devoted himself to writing poetry—very good poetry—to his pastoral duties and to toiling away in his garden. It was his pleasant custom on feast days to strew the chancel of his church with wormwood, sweet marjoram, and wild thyme. In his vicarage garden he grew for the decoration of the church only such flowers as were named after the Virgin and the saints. It was he who—having a salary of only £365 a year, most of which he gave away—wrote over the porch of his vicarage the ideals by which countless generations of these busy, devout, loyal gardening parsons have lived and labored—

A house, a glebe, a pound a day,
A pleasant place to watch and pray;
Be true to Church, be kind to poor,
O minister, for evermore!

# Old World Roses

By E. A. BUNYARD

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EDITOR'S NOTE.—This splendid discussion of old-fashioned roses by a member of the famous nursery firm of George Bunyard, Maidstone, Kent, England, is reprinted by permission of Mr. E. H. M. Cox, Editor of *The New Flora and Silva*, a most important English quarterly devoted to horticulture.

IN THE history of most garden plants we find that they pass through three periods, first mere culture, then exploitation and raising of new varieties, and, lastly, a decline in which some good and many ordinary varieties drop out of cultivation and are finally lost.

Tastes and fashion decree that certain flowers should be the mode, and under this edict they rise and fall in the true Spenglerian fashion.

In speaking of Old World Roses our thoughts go back to Tudor days or to the precise gardens of the eighteenth century, and we people them in our imagination with those fragrant varieties which still linger with us. The dry light of history, disconcerting as usual, shows us, however, that very few of these old varieties were known until the early part of the last century, and Anne Hathaway, assuming that she was a gardener, would have had but few of our old-fashioned sorts to gather. The White Rose of York, probably a variety of *Rosa alba*, the Damask, rather more doubtfully, the Musk (*R. moschata*), the York and Lancaster, and Rosa Mundi, would most probably be all that could be found besides the wild Eglantine. The old Moss, which we should like to place in the Shakespearean flora, did not arrive in England until the eighteenth century.

It is evident that the apogee of rose history had not yet arrived, and it was not indeed until the early days of the nineteenth century that the tide rose to a flood which culminated in a rose mania, of which some of the happy results are still with us to-day. But as the tide of appreciation swept on, it ebbed and flowed, taking first this, then another species as its ideal, and so, while we are still in the full sweep of rose interest and enthusiasm, it happens that the rise of the Wich-

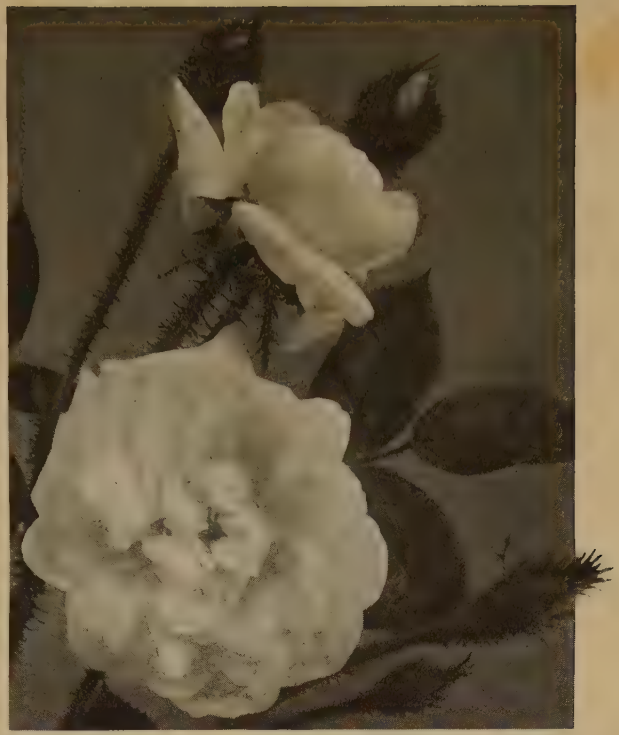

PLATE V. Old World Roses in American gardens

Crested Moss. See page 31

White Bath (Moss). See page 32

PLATE VI. Old World Roses as grown in America

Rosa gallica. See page 33

York and Lancaster. See page 32

uraiana, the great Hybrid Tea family, and the Pernetianas have eclipsed the favorites of our grandparents.

The varieties of roses were thus very few until the beginning of the nineteenth century, and it was the efforts of the French, Dutch and later, of the British raisers that produced the great number of varieties of which we have records, if not plants, and the bulk of the Moss Roses belong to the period of William IV and Louis Philippe rather than to the days of Queen Elizabeth.

And what could have been more suitable for Victorian albums and valentines than the Moss Rose, so eminently paintable, and over whose bristling hairs one's brush could so lovingly linger? So, too, we find the Damasks and the Cabbage Roses, though of greater age, had their climax in the 'forties and 'fifties of the last century, so far as their numerous varieties are concerned.

But the heyday of these old varieties is now over; they are forsaken for the long-flowering Hybrid Tea, the shiny leaved Wichuraiana and other varieties, and while we cannot grant the old roses all the virtues of their successors, they have in some ways many qualities which should secure them a place in gardens. Their foliage is more hardy and immune from many fungous ills which trouble our modern varieties, their scent in the case of the Damasks and Centifolias is still unsurpassed, and for certain gardens and certain gardeners they fill a place more fittingly.

### The Provence Rose—*Rosa centifolia*

The origin of the Provence Rose has exercised many learned minds and pens, and whether or no it was the rose of Homer may be left aside for our present purpose.

Let us take it as the Troubadour's Rose and as an emblem of that *gai scavoir* which made Provence the centre of intellectual Europe in the Middle Ages.

This Rose of Provence is our old Cabbage Rose and also the "hundred-leaved" rose of older writers; but there is more romance in Provence than in many cabbages, so let us choose the older name. The outstanding character of this group is their great fragrance, the true old-world scent which carries one back to farmhouse gardens, where, after rain, the scent hangs

in the still air and the rain-drops stand out on the silvered leaves in the very manner of a Van Huysum picture.

The large and broad down-curled leaves, "somewhat snipt about the edges" as Gerard noted, have great character and the virtue of resisting most of the diseases to which the modern rose succumbs.

The flowers are large and globular, and often a little pendulous, a fault among their many virtues.

The old type variety (the Red Provence or Cabbage Rose) is fortunately still grown in this country, as it has been since the days of Chaucer:

> Of Roses there were grete wone
> So faire were never in Rone,

which takes us back to the Rhône, the great river of Provence.

The "Provincial Rose on my razed shoes" of which Hamlet spoke, is the same flower which is thus intimately connected with this country from very early days.

The type is figured by Redouté and the pale rose flowers darker at the centre and the globular-shaped flower are well shown by this master of flower painting.

The great days of *R. centifolia* seem to have come in the eighteenth century, and in Dutch catalogues over a hundred varieties of this species were offered in Redouté's time; and Miss Lawrence in her famous book of drawings depicted nineteen. Most of these are probably lost, but Redouté's drawings may help us to rediscover some of them.

Among those still in cultivation we are glad to have preserved for us the old Rose des Peintres, the rose which Van Huysum, "Velvet" Breughel, de Heem and other Dutch still-life painters so vividly portrayed.

The flowers are of a rosy pink, with incurved petals, raised in the centre to form a ball-shaped flower, and have in full measure the fragrance of their race. Of more modern varieties which I have been able to collect, Anais Segalas, crimson-rose; Königin von Dänemark, delicate rose with darker centre; La Noblesse, pale rose with carmine centre, making a compact plant; and Duc d'Angoulême, the deepest rose of this group I have found, and the charming and almost white Unique Blanche, are all desirable and representative.

All these have the fairly large flowers as in the type; but *R. centifolia* has given us some interesting sports, of which the Moss Rose is best known, and the less common miniature varieties such as De Meaux are charming variations in the pompon manner.

The variety De Meaux, the *R. Pomponiana* of Redouté, is a dwarf plant of 18 inches to 2 feet, and the miniature flowers are pink, petals incurved, and much like the shell flowers beloved of our industrious grandparents, while the fragrance of *R. centifolia* has not been lost. The little, compact bush makes an admirable front row plant or for the lower slopes of a rockery, and when they become more plentiful would make an admirable dwarf hedge.

*R. burgundiaca*, or the Pompone de Bourgogne of Redouté, has red flowers which open flatter, rather in the style of the well-known Polyantha varieties. It is also of dwarf habit and may be grown in the same positions as the De Meaux. It can be cut back after flowering to keep it in shape, and will grow in any soil provided that it has full sun.

There is also a Pompone de Bordeaux to match its Burgundian sister, but this has so far eluded my search. The Petite de Hollande is intermediate in growth between the Pompons and the type, and the small bright rose flowers are fresh and very effective.

No collection of Provence Roses would be complete without the lovely Unique Blanche; the pure white flowers of cup-shaped form are most attractive and dainty.

### The Moss Roses

The Moss Rose, so called from the moss-like proliferations of the sepals, has been a favourite in English gardens since its introduction from Holland probably in the year 1727, and has retained a place in our gardens in spite of the rise of new groups of roses, and we are thus fortunate in having a fairly extensive list of survivors.

The old type variety, or Common Moss, with its pale rose-pink flowers retains its popularity, and the Crested Moss, of the same colour but having a wonderful crested sepal, an enlargement of the original mossing.

Of the pure whites there are the Bath, Blanche Moreau, La Neige and Blanche Simon. In rose-pinks and carmines Gloire des Mousseuses, as its name suggests, is a folio edition of the type, and Imperatrice Eugénie has bright rose flowers and a valuable habit of flowering again in autumn. Eugène Verdier approaches a red, Eugène Guinoisseau crimson to lilac-purple; Madame Moreau, carmine, with an occasional white striping, is of unusual vigour. Violacée has a curious steel-blue tinge turning to greyish pink, which will be admired by those who like the black currant and cream-coloured carnations.

There are a few old varieties which I should like to discover: the Pompon Moss figured by Redouté must be a charming little plant, and the striped Moss seems now to have been lost to nurserymen but may still exist in gardens.

### The Damask Rose—*Rosa damascena*

The Rose of Damascus by the well-known legend was brought to us by the Crusaders, and we know from Sir John Mandeville, Damascus had many "fayre gardens and dyverse frutes."

A later and more credible voyager, Kinglake, spoke of the roses there as "all of the kind we call damask" and so we can accept the name without the date of introduction, should our critical historians intervene.

This species has not added many varieties to our gardens, but there were some twenty in Redouté's day and very charming they must have been, reminding us rather of the China Roses, such as Hermosa, in shape of the flower, but very different in the small leaflets, which are more of the Sweet Briar size and form.

Of the few of this family which are still in cultivation the true York and Lancaster is best known. This plant is not striped as in Gloria Mundi and others of the Gallica section, but has an occasional red petal among the white ones and still more rarely a whole red flower, being possibly a chimera.

There are many pleasing legends as to the origin of this rose and as many opinions as to which is the true variety; some will have it that the rose which commemorated the York and Lancastrian peace was a Scotch Rose (*R. spinosissima*). The variety I grow is that illustrated by Redouté.

Another survivor is Kazanlik (*R. trigintapetala*), and this is the variety grown in the Balkans for the production of attar of roses, and is one of the most sweetly scented of its group. The flowers are rosy pink, and semi-double, and the plant is of strong growth.

The beautiful Lady Curzon is a modern addition, and has all the ancient fragrance in its pale single pink flowers. The habit is strong and almost a climber, and it is thus very well placed in a shrubbery or against a low wall.

### The Gallica Rose—*Rosa gallica*

The Gallica Roses had a great run of popularity in the early nineteenth century, and, before the all-conquering Hybrid Teas and Hybrid Perpetuals came in, held first place in gardeners' hearts. The Empress Josephine's garden at Malmaison, a horticultural centre of the first importance, contained a large collection, and some of them are preserved for us by the exquisite brush of Redouté. The other name for this plant is the Provins Rose, so named from the old town of Provins, east of Paris, where a special variety had long been cultivated. As this name is likely to be confused with the Provence Rose of Southern France, it is best to refer to it as Gallica, though in Redouté and with many botanists we must look it up under *R. provincialis*. One of the oldest, and perhaps the original of Provins, is the Apothecary's Rose, *R. gallica officinalis*.

Closely allied is the Red Gallica, often called Red Damask, but a true Gallica. It is rather darker and more single than the Apothecary's if we are correct in so naming the first-named.

The Tuscany is a semi-double variety of a rich claret-red which fades to a darker shade, and this, turning to black, is characteristic of the old Gallicas.

The Blush Gallica, whose virtues Miss Jekyll has so eloquently sung, deserves all the praise it has received. The flowers are fairly large, pale blush-pink, deepening in colour at the centre, and it is semi-double. As Miss Jekyll points out it has the merit of thriving in the driest soils, and on dry walls or banks it thrives with as great content as a Broom or Cistus.

This species has given us many striped forms, and among those I have been able to collect the best are Belle des Jardins;

Madame d'Hebray, very large and full; Georges Vibert, a flat reddish-violet flower; Œillet Parfait, a dwarf-habited rose; Panachée, double, and Tricolore de Flandres. It may be that some of these are of partial hybrid origin, but they come together as Gallicas to the gardener's eye, and are probably all seedlings from the old Rosa Mundi, which is by some authorities placed in the Gallicas and by others as of hybrid origin.

### Climbers

Of the climbing garden roses there are few that date back many years, but one must mention the fine *R. sempervirens* variety, Félicité et Perpétue, which was raised by M. Jacques, the head gardener at Neuilly in 1827. The large clusters of pale creamy double flowers, so neat and flat in form, are reminiscent of those small roses which adorn the trellises of Italian pictures of the Renaissance.

The clean distinct foliage and great vigour and hardiness recommend this charming variety as a change from the rather too all-conquering Wichuraianas. There is a distinction and grace about this plant which is lacking to many of the more modern doubles, and it is to be hoped that some of the other varieties of this family may be discovered and rescued from an undeserved neglect.

### Rosa alba

This once great family is now unhappily reduced to a tithe of its former numbers, and it becomes extremely difficult to identify its older representatives.

The Maiden's Blush is a full flower, palest pink, flat shape, seldom seen except in old cottage gardens. Céleste and Cuisse de Nymphe are also both sometimes known as Maiden's Blush. The old Celestial is very similar in colour to above, but with longer and more pointed buds; the expanded flower is flat, but with fewer petals not packed so tightly together as in above. A charming contrast is produced by its greyish leaves.

Another old variety I have found is probably the *Rosa alba flore-pleno*, as figured by Redouté, but I am reluctant to dogmatize when I remember the great number of Albas which figured in old catalogues. I will call it tentatively *R. alba* var. Miss Rhodes in honour of its kind donor.

# Getting More Out of Our Roses

By MRS. PAUL C. SCHILLING, Nova Friburgo, Brazil

EDITOR'S NOTE.—From South America comes this fine contribution not only to rose appreciation but to rose solidarity. Mrs. Schilling's keen comments do not interfere with the delightful idealization suggested in Mrs. Elmore's "Fantasy" on page 39.

ACHIEVING a rose-garden is the beginning of an endless adventure. To have plenty of roses for the house and for friends, even to have the garden visited by fellow rose-lovers, is not the end. When the garden is firmly established, one can begin to study the rose, the flower which has given such rich rewards for love and attention through the ages.

For roses have *personality*, that something which so many people talk about expressing nowadays; quite rightly, too, for there are still so many people who would like to compel their neighbors and friends to conform to set standards. If these people could and would study nature a little, they would soon see that personality and individuality are everywhere exemplified. To be sure, the rose does not strive to become an apple tree, and men should not try to make apes of themselves, having once escaped that bondage; but within the limits of its own genus, how wonderful the variation!

This splendor of difference in nature is never shown more charmingly than in the rose-garden. There one feels a close relationship with people; one understands the passion for self-expression which makes a young human being resemble an unfolding rose. Maybe that is why all true rose-lovers like to know the names of their roses, and perhaps it explains how rose-originators select the names they give their new creations. Surely Laurent Carle is an essentially masculine rose, full of ardor, eager, proudly poised, rich in youth, prodigal of vigor, like a young man ready to begin his work in the world. On the other hand, where could one find anything so like a Victorian lady as that dainty, old-fashioned rose, Souvenir de la Malmaison?

Not all roses make us think of people; some remind us of abstract ideas, or fancies of the imagination; some are like jewels; some are compounded of dreams, hopes, and unspoken

longings; some, of course, are just plain roses that never seem to emerge from the crowd into the limelight. But those which have found recognition as fascinating personalities offer a delightful study in character—a study that grows increasingly interesting as one's acquaintace with roses enlarges.

Your garden of roses differs from mine, mine from another's; so one's study becomes a personal matter.

As I walk among my roses of a late, cool afternoon, I pause a long time before a well-developed bloom of Lady Alice Stanley. Why does this rose breathe the perfection of lovable womanhood? The arrangement of petals, gently curved back just a trifle, even in the center, so gracefully overlapping and supporting one another, like the studied folds of a lovely frock, all so uniform, so well-proportioned, so regular, so strongly placed on its stem, and the whole so well guarded by its outer rows of petals—this it is which gives us the essence of ladyhood; but it is the flushed loveliness of color, the two tones of softer and deeper rose, together with a bountiful fragrance, that give it its lovableness; Lady Clara Vere de Vere humanized, vitalized by love!

But wait a moment; here at my left is a fine Mme. Jules Bouché, quite different in shape and manner of unfolding from Lady Alice Stanley, yet a rose as essentially feminine as the other. The rose with the French name recurves her petals in individual poses away from the long, pointed center, where, as the unfolding and reflexing continues, one discovers the secret charm—a heart of palest flesh in dainty contrast to the clear white purity of the other petals. One may not care for white or flesh-colored roses, but this subtle combination of the two tones of color and the perfection of modeling make this a rose admired without reserve.

Just beyond is Betty, a rose as friendly, generous, and winning as its name. Thin petals, with a rosy iridescent sheen, careless in pose, varying in color—this is the debutante in her first party dress. Again this is a decidedly feminine rose.

In another part of the garden stands Jonkheer J. L. Mock, sturdy, upright in growth, with a flower whose thick petals, firmly recurved, whose contrast of color—pale and deep rose—whose strong individuality, proclaim its masculinity and the

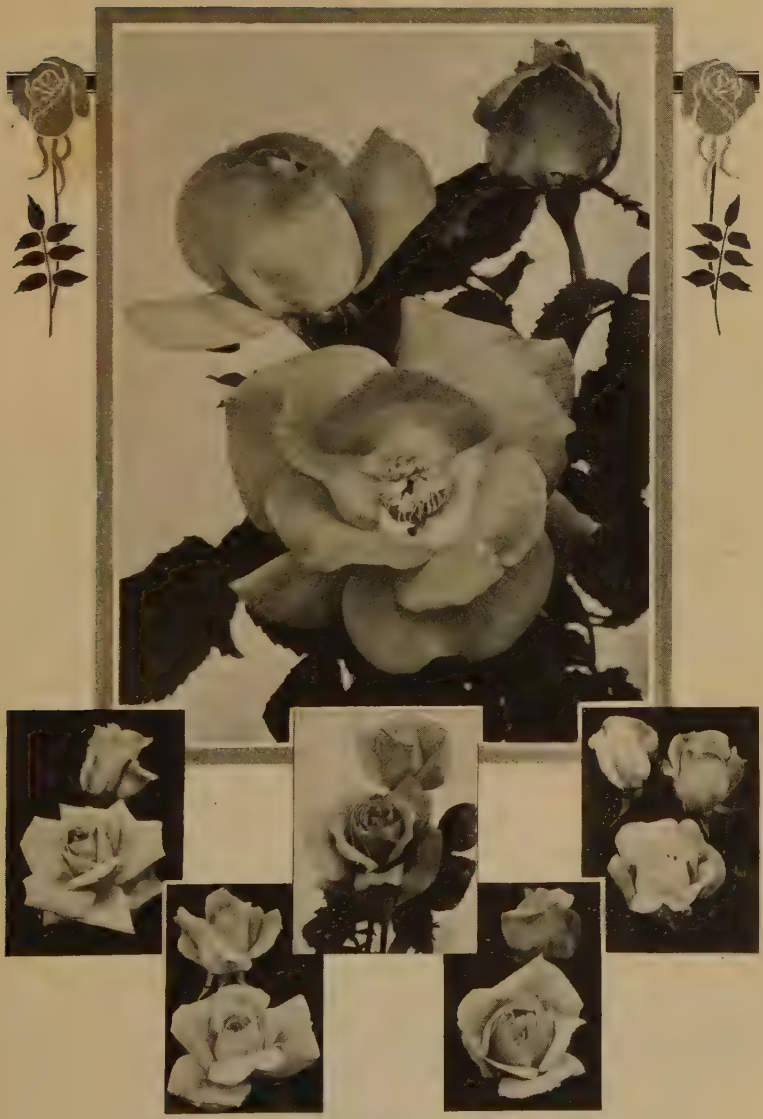

PLATE VII. The English Gold Medal and Certificated Roses, 1929

*Above.* Mrs. C. Aveling, HT.
*Center.* Betty Sutor, HT., W. E. Chaplin, HT., Gladys Benskin, HT.
*Below.* Leslie Dudley, HT., Lieut.-Col. A. Fairrie, HT.

Photographs by courtesy Mr. Courtney Page, who describes these roses on pages 156, 157

PLATE VIII. The English Gold Medal and Certificated Roses. 1929

*Above.* Aureate, HT., James Gibson, HT., George Howarth, HT.
*Below.* Tom Barr, HT., Molly Darragh, HT., Trigo, HT.

Photographs by courtesy Mr. Courtney Page who describes these roses on pages 55–157

aptness of its resounding name. I have yet to find a rose with which it can successfully be combined in a vase.

The study of texture is a profitable pastime. Some are velvety, some satiny, some of strong substance, some very delicate. I should like to classify the roses in my garden on this basis and see how many different types I can find. I prophesy no silk-counter can offer so varied a showing.

Petal manners—there's an intriguing subject! How many can name, without going to look, those that recurve, and can name the rose that set the standard for the type for many years? Some like the very double roses with a row or so of large guard petals and many smaller imbricated and fluted petals; others will have none of these, but insist that their rose family all show size and substance in their petalage.

This study is closely allied to rose shape. We have the high-pointed-center rose, the flat, double rose, the cupped rose, the loose, floppy rose, the neat, tidy rose, the pyramid rose, and the many varieties in between.

And one has not yet exhausted the interest of the rose-garden! There are the leaves, the thorns, the manner of growth, the buds, the spray-forms in climbers and singles, and the fragrances of flower and foliage.

The true rose-lover knows all these things about the roses, lives intimately with them, knows their needs, ministers to them, and enjoys their slow but sure response.

I have read the last Annual at least three times and find renewed interest each time. Especially have I enjoyed those articles in which "rose experts" discuss their rose preferences, which, I think, is a much better arrangement than a general referendum. Surely the publication of these varying opinions cannot fail to promote, among discriminating readers at least, greater tolerance in their judgment of individual rose performance. It is so evident in the reports from different sections of the country that the same rose behaves differently under differing conditions. I noticed especially one of the correspondents states that Laurent Carle is a worthless variety. This rose is the great and shining glory of my garden—sturdy, healthy, long-stemmed, and a shade of red that does not blue nor fade. It is planted in not too rich orange clay. I was glad

to see it mentioned favorably elsewhere in the Annual. Radiance seems to be in the black books of several members. While I have never been so great an admirer of this rose as so many are, I still fail to see why a rose ranked so very high before should now be denounced. Is popularity a rose crime? One day, recently, I picked eleven fresh blooms from one Radiance.

Another sidelight on appreciation of roses is the need of knowing the types of roses one has and what, in the course of nature, may be expected of them. The Rose Annual will tell you how to know Polyanthas from Briars, Briars from Hybrid Teas, and Hybrid Teas from Hybrid Perpetuals. Have you ever taken visitors through your garden and have them say, standing before a faithful old rose like Hermosa (blooming gaily away when there is scarcely another rose flowering in the garden), "I do not care for these small, semi-double roses"? If you have, let us hope you have been prepared with ammunition for a bombardment on the subject of "What should be expected of roses." There are even barbarians who expect every rose to bloom all the time and to be as large and fragrant as Paul Neyron. Let us hurry to graduate out of that class into the one where we know the peculiar and intimate charm of each rose of the garden and where we are even ready to try to discover the beauty our neighbor finds in *his* favorite rose.

I read the other day of one gardener who puts Mme. Edouard Herriot at the top of her list of roses. For me that was an interesting surprise, for I have two scraggly, thorny bushes of it that produce possibly two lovely, clear coppery scarlet buds a year, but the open rose is a dismal, faded pink. Now, having read her article, I am sure that our climate does not suit this rose and imagine what it must be like in that other garden.

Again, I read recently the phrase, "If you *must have* red roses." To that author, I wanted to say, "Try for tolerance—it pays." Then I made the round of my red roses—Laurent Carle, Black Prince, General "Jack," Commandeur Jules Gravereaux, Etoile de Hollande, and a few others. Studying their fragrance, their velvety richness, and opulence of bloom, I made a new vow to strive for breadth and to merit the order which I hope some rosarian will found, "Master of the Art of Appreciation."

# My Fantasy Rose-Garden

By MOLLY DeFORD ELMORE, Alta Vista, Md.

EDITOR'S NOTE.—Mrs. Elmore might almost have entitled her personalizing of roses as "Making Your Roses Fit Your Friends," it would seem! To thus deal in fanciful fashion with rose favorites is surely a way to enjoy them more fully.

I DO not know just why the thought first came to me to name my pet roses for treasured friends. I do know that it came one wintry day, during an enforced season of the darkened room, while mentally revising my plantings, listing items to order for spring delivery—all later to be put on paper, —and that one of my first consciously definite thoughts had to do with two specific roses already being enjoyed, whose names always brought vividly to mind two friends cherished since girlhood. Many had been the gay quips and sallies passed among the three of us, as I pruned and sprayed and fussed over and tended them, or sheared them of their summer glories. Then, too, there had been the day when an inveigling Wichuraiana hybrid, Universal Favorite by name, had so wrapped himself 'round my heart that he was dubbed for all time, "Lindy."

This combination of memories was probably responsible for the first contagious germ on that blustery January day, though others began to pour in thick and fast—multiplying terrifically, as germs have a way of doing. Soon the whole Rosewalk of fifty specimens was reserved, some newly opened beds were being populated at a breath-taking rate, and as other loved friends clamored for recognition, the more remote plantings offered up their accommodations. All offers were subjected to a rigid test—every rose must satisfy one necessary qualification —it must provide at least one analogy to the personality of the human friend assigned it. In fact, many of the assignments here recorded embrace two, three or more individuals to the one rose, but such are so associated only where close camaraderie exists amongst them in the flesh.

Oh, it is a thrilling game, for it goes on and on with endless possibilities. And how wonderfully versatile my "rose children" are, and what convincing arguments they put up! For instance

Tausendschön and Hiawatha prove their fitness in every particular to receive at the entrance to the pergola, to which the Rosewalk leads. Hiawatha, vigorously, definitely, altogether masculine, presents himself as aspirant for the new family bridegroom—"Thousand Beauties" can be no less a personage than the little bride herself—and so they keep tryst at almost the exact spot on which they stood for the happy ceremony a few short weeks ago. She claims the privilege of retaining a few thornlets—for his benefit possibly—but thorns are forgotten when both have scaled the heights and are weighted with their perfection of bloom.

Then, the bevy of bridesmaids must be taken care of, and what more fitting than that Bess Lovett, fragrant and gay, should from her glowing arch personify that one of Spanish coloring and sparkling vivacity? And what higher honor could be paid Climbing American Beauty than to be hostess to our own American beauty whom everyone adores? That little colleen of the piquant face and roguish smile can be none other than Killarney, and since she is so very Irish, it shall be the Double White. Her fair English companion, of peach-blow coloring and airy grace, will she not be a perfect Mme. Butterfly? Another American beauty, maid-of-honor, finds affinity in the girlish Mary Wallace, the pillar of richest pink. The little ones, youthful attendants, are cuddled up within the heart of Los Angeles, which one rosarian christens "*l'enfant terrible*," because one never knows where this modern child is going to break out next—now defiant to all your attentions so you are in despair over the misnomer, "The Angels"—now so very, very good that you love it all over again and know that you could never live without it.

The artist son of the house (human) is K. of K., with his wealth of brilliant scarlet, and nearby is another who, having a deep fondness for things German, reposes in the depths of Gruss an Teplitz. Adjacent to him is a beloved in the guise of Climbing Richmond, who from her arch is monarch of all she surveys. Red Radiance houses the heart of a distant loved one, and Hawlmark Crimson is a dominant figure in landscape or arena. The spirit of a dear brother, gone from human vision, finds lodgment in the pink richness of Souvenir de Georges

Pernet—the memory of a cherished sister survives in the gold of Souvenir de Claudius Pernet—likewise, a closer union is embodied in that other golden Souvenir—de H. A. Verschuren. An only sister, whose rose-gardens in the sunny south were once the joy of all beholders and whose favorite flower color is yellow, is indissolubly linked with that rose of temperate climes, Maréchal Niel; just as another friend of that decade cherishes that other climbing yellow idol, Gardenia.

Coralie, with her full-blown rare coral-salmon, covering her uplifted arch, happily whispers of one whose name she suggests. An exasperating near-one, who as a correspondent surpasses himself about twice a year, then retires into silence, finds striking analogy in that gorgeous vermilion, George C. Waud, who, as some of his impartial admirers say, is "good in spring, fine in autumn, but in summer is scant and off-color." Another, as steady as Gibraltar, is not badly placed as the crimson Francis Scott Key, which, although temperamental as to bloom, surely stands in name for dependability. Similar likeness is found between H. V. Machin, a "true red," and the "old faithful" which it represents. A little pal, who adores dark velvety red in colors, is partly for this assigned to Château de Clos Vougeot—partly for the fact that she can really pronounce her namesake; while a real *Française* so far away is brought nearer by means of Etoile de France.

Betty Uprichard is a lovely rose whose orange-to-apricot tints are shown marked preference by a youthful chum. A stately, majestic one qualifies for The Queen Alexandra, the while she has to wink at this new favorite's fondness for loud vermilion-scarlet with old-gold. A comforting, jolly sprite dwells within that brilliant pink, Lady Ashtown, and near her flourishes a popular rival under the stage name of Lady Alice Stanley. Nearby is another cherished one masquerading as Mme. Edouard Herriot. A group of folk are directly across the walk—friends of close associations presiding severally over: one-and-only Columbia, Mme. Caroline Testout, Miss Cynthia Forde, Mrs. Henry Morse, and the incomparable Radiance, dear to a neighbor friend.

In the yellow groups are Mme. Alexandre Dreux, which fitly idealizes a friendship of the years; beside her is a protégé of

her own, also an adoption of the garden owner, camouflaged as that great favorite, Mrs. Aaron Ward; and following after, Miss Lolita Armour and Ville de Paris, whose golden beauties adorn the presence of youthful friends. The distinguished Rev. F. Page-Roberts requires no strain of the imagination to be interpreted in terms of a revered minister and his family. Across the walk, again, are Lady Hillingdon, embracing two dear girls, Roselandia whose riches are jealously guarded, and the Duchess of Wellington whose counterpart in the galaxy is as stately a duchess as England at her proudest ever produced.

Titled ladies seem to be the order of the day, for here also, among the whites, is the Kaiserin whose last name is borne by a chum of the long ago. Mme. Jules Bouché seems to be cast so appropriately in her rôle—fair Edel for one "tried and true"—the graceful Silver Moon which brought from its original site the friendship of its donor—and White Maman Cochet who typifies the acme of all that is best in motherhood. In the tinted ones are Wilhelm Kordes for a distant quartet, chaste Ophelia for one of close adoption, and dainty Lady Ursula which hallows the spirit of a friend throughout more years than she or the gardener would probably admit.

This Rosewalk would be incomplete without that favorite of all favorites, Dr. W. Van Fleet, which indeed occupies a high spot in the picture, where he can keep his eye on "the children" of the pergola—Tausendschön and Hiawatha and therefore, his presiding genii are the groom's own life sponsors.

Neither could the setting be quite complete without the presence of one whose help and inspiration have made it all possible, so he presides over one-half of the welcoming entrance arch as Heart of Gold; then, well, he really might get lonely climbing heavenward without company, and so, coming to join hands with him from the other half of the arch, has to be placed—a Crimson Maman Cochet.

# The Importance of Form

By G. F. MIDDLETON, Past President Seattle Rose Society
Seattle, Wash.

EDITOR'S NOTE.—It would be well for the advance of the rose if every hybridizer would have Mr. Middleton's clear statement read to him once a day for a year! The probable result would be fewer new varieties, and better. We have had far too many floppy roses with nothing to commend them save a flash of fleeting color. Now someone should discuss "The Importance of Fragrance."

AT THE Rose Show of the Seattle Rose Society, in 1929, for the second time, I won the gold medal for the best rose in the show grown by an amateur. I also won the Grand Challenge Cup for the best rose in a section open to gardeners, nurserymen, and former gold-medal winners. Only once before has the Seattle Rose Society's gold medal been won twice in succession, but never before has the same rose won the medal twice. Yet my dear old Lemon Pillar did it, and if I exhibit again next year, I look with confidence to see it win the third time.

I am not bragging. What I want to emphasize is *the importance of form* as an attribute of the rose. Lemon Pillar does have form. Many of the new varieties do not.

Growing the newer varieties of roses has claimed my attention for many years. After two years or so, not a few have been discarded as unsatisfactory. Often the plants are weaklings (due to over-propagation) and naturally much cannot be expected from them until they have been budded in the garden. The newly budded plants frequently make splendid growth, but alas, the bloom is disappointing.

What is it that compels us to try the unknown roses? The answer is, the raiser's glowing description of its color and the wonderful pictures in the catalogues—unfortunately, very often of full-blown blooms. Even persons not acquainted with the growing of roses will tell you a tight bud or full-blown rose is not as attractive as one that is half to three-parts open, but color claims the attention of us all.

But often the color of a promising new variety fades all too soon, and owing to lack of petalage the flower must be cut in the bud stage. Should the day be warm, it is a shapeless mess

within an hour or so. Such a bloom is useless for exhibition or garden purposes and cannot be regarded as the *ideal* type of rose because it lacks *form*.

Form as a quality of the rose does not seem to be clearly understood. A lack of understanding of what constitutes a good bloom is largely responsible for the many disappointments in buying and growing some of the newer varieties.

Color in a rose may be compared to a pretty face. You remark "What a beautiful girl!" After awhile you hear (somewhat to your surprise) a remark, "Yes; but isn't she skinny?" So it is with a rose. You are attracted by color, only to find out later that it lacks petalage to insure its keeping qualities after cutting, or to enable it to retain its form on the bush for a reasonable time when grown in a bed for massed color effect.

One has but to read the articles in last year's Annual from those growers who reported on their favorite roses to see that color has been the most potent factor in their choice. Though the writer is attracted by color, he realizes more and more the importance of form as defined in the rules laid down by the National Rose Society of England.

But what constitutes form? Perhaps the aforementioned rules will supply the answer: "Form shall imply: *petals abundant* and of good substance, regularly and gracefully arranged within a circular outline and having a well-formed center."

It is pleasant to remember the advice given by the late Rev. J. H. Pemberton in his book, "Roses, Their History, Development, and Cultivation." "*Form* comes first, even before size and brightness. A large bright rose—it may be as large as a peony—if it lacks *form* is a bad rose. And notice the primary qualification of form: 'petals abundant and of good substance.' Do not be led away by a merely pretty rose; it may be bright and perfect in outline, but if its petals are thin and papery, it is lacking in *form*."

Why is it that roses like Rev. F. Page-Roberts, Mrs. Henry Morse, Mrs. Henry Bowles, and the quite recent Mrs. A. R. Barraclough, are spoken of so highly? Is not George Dickson, who has been with us many years, still considered the *ideal* type of rose? They all have "petals abundant and of good substance." Yet every one of these roses has some fault, such

as being slightly troubled with mildew, or their color is not dazzling, though very pleasing and better than most; growth is also satisfactory. It must be admitted that it is *form* which accounts for their popularity and keeping qualities. The same may be said for many other roses, both old and new.

What a pity the raisers of new roses have not kept in mind what really is the ideal rose! They, too, have been chiefly influenced by color, and certainly have made the most of it to the exclusion of other considerations. Is it any wonder they have come in for a lot of condemnation?

In the Pacific Northwest, where roses can be grown to perfection, added interest is given to their culture by the many rose shows held during the month of June. Here is where *form* becomes all important, because only those that have "petals abundant and of good substance" can be grown and staged without disappointment.

Unfortunately, the American Rose Society's scale of points governing the awarding of prizes at amateur rose shows gives too much value to color. The same may be said of stem. Surely it is not a Stem and Foliage Show to which you bring your blooms, but a Rose Show where the bloom is of the utmost importance. In view of this fact, all that pertains to the bloom should be given greater preference, because it does not seem reasonable to suppose that you would buy the plant for the foliage alone and consider the bloom of secondary importance.

The judges at shows should remember that tight buds, full-blown roses, and those with malformed centers do not represent "form" as recognized by the authorities who state "a bloom at the time of judging should be half to three-parts open to be at its most perfect phase of beauty."

They should be acquainted more or less with the varieties that come under inspection; should know which is an easy or a difficult rose to grow to perfection; and whether a particular bloom is true to type in *form*, *size*, and *color*.

The greatest enjoyment in rose-culture is to grow varieties that can and will, if only at times, give blooms that constitute the Ideal Rose.

# More Municipal Rose-Gardens in 1930?

By ROBERT PYLE, Secretary American Rose Society

WHEN, fifteen years ago, I returned from a European tour, the contrast between the municipal use of roses here and abroad was striking, all the more because a meeting of the American Rose Society was held in the only American municipal rose-garden. This, the Elizabeth Park garden, in Hartford, Conn., had proved its civic value, not only as a local attraction but by bringing many visitors from long distances. Shortly thereafter a similar garden was planted in Lyndale Park, Minneapolis, and was equally successful.

The 1929 Members' Handbook gives some details concerning 64 such public rose-gardens in 28 American states and provinces. These municipal gardens steadily increase in popularity and value, and in many cases they consequently have been enlarged. Such rose-gardens have proved their permanent civic importance. They are not on trial.

Requisites for a successful municipal rose-garden are:

*First.* The provision of personal leadership of vigor and standing, and discussion, promotion, and endorsement which will insure public favor.

*Second.* The selection of a site for the proposed garden, suitable in location, exposure, soil, and general availability, and the ascertainment of facts concerning cost, the title, and the like. A public park location is always preferable.

*Third.* Adequate and continuous support, by income from an endowment or by assured relation to a park appropriation.

*Fourth.* By correspondence, visits, and inquiry, to become informed in regard to what other communities have done, how the problems of design and maintenance have been solved, so that your city may, if possible, do better.

The American Rose Society is glad, within its resources, to help, but obviously it cannot undertake technical problems of design. For example, correspondence is proceeding, as these words are written, in encouragement of municipal rose-gardens in Topeka, Kans., and in Santa Barbara, Calif. The latter city has the good fortune to be the home of a rosarian of profound learning, Rev. George M. A. Schoener.

# Roses and Bricks

By F. A. WAUGH, Amherst, Mass.

EDITOR'S NOTE.—Prof. Waugh states a problem, but he misses the fact when he insists that "everybody loves" the Crimson Rambler, a rose that through over-exploitation has come to deserve the obloquy showered upon the painful "Peegee" hydrangea and the Van Houtte spirea—two other sins for which the nurserymen are responsible.

But it is not hard to answer his wail. There are rose varieties that won't be disgraced by a brick wall. The yellow buds of Le Rêve, Primrose, Gardenia, and Ghislaine de Feligonde ought to please him, and he can have copper tones in Jacotte, Albertine, Coralie. With protection, Emily Gray will give him better than Maréchal Niel effects. There are agreeable white roses, too, that will not put the bricks out of countenance—as White Dorothy, Milky Way, Purity, Silver Moon, Mary Lovett.

CRIMSON Rambler has sometimes threatened to become a national institution. It grows lustily and everybody loves it. What more could be said for baseball or the flapper, or for the bootlegger, or any other national institution?

When one has a Crimson Rambler growing and in full blossom, he feels that he has settled down and has a home. Carl Sandburg wrote a poem about it entitled "Crimson Rambler." I am not authorized to quote his entire poem, but what he was trying to get at in his evasive, inarticulate, poetic manner was to say that now when we have a Crimson Rambler throwing its bright blossoms over our roof this becomes a symbol of our wedded loyalty and our home.

The sentiment is good; the horticulture is good; and the landscape gardening may be good—providing the house is not built of brick! If the house happens to be red brick, then the rambler combines with it like a St. Patrick's Day parade with a Klonvocation of the Ku Klux Klan. Instead of becoming the symbol of a good home, it becomes a cat-fight. Of course, the home may be a cat-fight, too, but in that sad case we don't advertise it so obviously.

The idea of growing climbing roses on the house is a good one, and down South, where the Cherokees thrive, it is a safe one. On the old New England houses, painted white, and on modern bungalows of light-colored (not pink) stucco the Crimson Rambler or its more popular congeners will suit very well. Of course, if the house is painted red like a freight car, as some

houses are, there will be trouble with Crimson Ramblers, but, in general, the serious problem arises only with good, honest brick houses. Such houses are very much worth having; and as the climbing roses are also very much worth having, the problem arises of combining the two.

The solution of this problem obviously requires some variety other than Crimson Rambler. We cannot even use Dorothy Perkins or any of the other pinks or reds. Even such a mild pink as Dr. W. Van Fleet has all its delicate nuances ruined by contact with the colors of the brick. There is, in fact,—at least so far as I know,—not a single thoroughly satisfactory hardy climbing rose suitable to the central and northern states and also suitable for growing on brickwork. This very serious lack, it seems to me, offers a direct challenge to the rose-breeders —and they need challenges.

They ought to be able to meet it. There seems to be enough material in their stock in trade to do the trick. The yellow of Hugonis or of the Austrian Brier offers a fairly satisfactory color. However, I have seen other colors, especially golden bronzes, amongst the newer varieties in England, which seemed to me still more desirable. As I get the information, these are derived mainly from the Pernetiana blood; and I am told further that this strain is highly adaptable in hybridization. If these are the facts, it ought to be possible to combine some of these rich golden colors with the hardiness and lusty vigor of plants available in our best Polyantha climbers.

Obviously, such a rose would be entirely worth while in itself and without any reference to the problem which the landscape architect has to meet—the problem of growing roses on brick houses, brick walls, brick garages, brick factories, and other structures where roses ought to grow, but where any taste more sensitive than that of a customs officer writhes with pain at the sight of the ordinary pink or scarlet rambler blossoms. As rose-use in connection with architectural form develops, this matter of color harmony and true adaptability becomes most important.

# From a Rosarian's Notebook

By STEPHEN F. HAMBLIN, Lexington, Mass.

EDITOR'S NOTE.—Mr. Hamblin asks some important and pertinent questions, and gives the facts to back up his queries. We surely need in America some purposeful hybridization in fields that have been side-stepped.

## I. THE CASE OF HARISON'S YELLOW

THERE are only two old roses, both yellow and double, which are perfectly hardy in northern winters. Both came to our gardens in 1830. Persian Yellow was brought from Persia by Sir Henry Willock about that time or in 1837, but the single yellow Austrian Brier came before 1596. Through the wizardry of M. Pernet-Ducher, they have recently become the ancestor of all modern Pernetiana roses, from Los Angeles to Talisman. There are several "climbing" forms, as Star of Persia, Rêve d'Or, and Von Scharnhorst, yet the Persian has remained unchanged in habit, being not too easy to grow, very subject to leaf-diseases, and always requiring to be budded because it is not easy to propagate by suckers or cuttings. The red-brown bark and the long, straight gray prickles are constant characters, with the spicy but not pleasant odor of the flowers.

The other hardy yellow rose, Harison's Yellow, was sent out in 1830 by an American, Rev. George Harison. Nothing was given of its parentage, but supposedly it is the single yellow Austrian Brier crossed with some form of the Scotch rose. It has never had much publicity, but it is found in every old garden in our northeastern states wherever there is a permanent yellow rose, while the Persian Yellow is rare. The blossoms of the two are similar, though Harison's has little odor, but their habits are quite different. Harison's Yellow is very vigorous and long-lived (fifty years or more in grass), suckers quite freely (so it may be divided), and is considerably free from leaf-troubles. The twig and short bristles are quite Scotch. It blooms freely and sets abundant seed. Dr. Van Fleet said that the seed did not germinate well. Why has this most vigorous of yellow roses been neglected as a parent of sturdy yellows?

First, as to its origin. The Rev. Mr. Harison gave out no data, but the Austrian in its parentage has been taken for

granted. Yet it is far more like Scotch in all ways, and yellow (single) Scotch roses are found wild (as var. *hispida*), while named yellows have been listed for more than a century. Could it not have been a chance seedling of the Scotch rose, unusually double? Seeds taken from isolated plants have germinated very well. The new plants are identical with other Scotch roses in leaf, growth, bristles, and suckering roots—there is nothing of Austrian Brier in this second generation. Except for flower color, they are Scotch roses. The flowers range from single to as double as Harison's Yellow, the yellows predominating from deep to pale, but with others white, pink, rose, and salmon, a very sturdy assortment of Scotch roses. One, identical with the parent, save in paler color, has been tagged Harison's Lemon, and resembles a theoretic double Hugonis. Seedlings of the third seed generation will bloom this year. Still there is no Austrian Brier in them.

The Austrian-Persian rose has had its chance, and Hugonis has been tried as a parent. The Harison group is much like Hugonis, for Scotch and Hugonis are closely related. Scotch is very prickly, with the fruits black; Hugonis has no prickles on the outer half of each twig, the bark is more red, and the fruits are red. Hugonis does not give up its identity readily in the hybrids; Harison's is already double and dark yellow (Hugonis is a single pale yellow). Hybrids of Harison have been recorded, as with Rugosa (Agnes Emily Carman), with Rubiginosa (as Lady Penzance), and Buisson d'Or (1927) is Mme. Edouard Herriot × Harison's Yellow. Harriet Neese, the latest, is recorded in the 1929 Rose Annual as Ophelia × Harison's Yellow. Why not drop Persian for a time as a parent, continue to experiment with Hugonis, but give also Harison's Yellow a try for the needed hardy vigorous yellow?

### II. THORNLESS ROSES

Although once there may have been no rose without its thorns, there are today many forms that are unarmed or nearly so. What a pleasure it is to prune a rose bush that does not reach behind you and tear your ear, and what a joy to gather a blossom that does not have to be handled with gloves!

A few wild species are mostly unarmed. Our native Meadow

Rose (*Rosa blanda*) is armed only with a few bristles, and *R. saturata* and *R. hugonis* (from China) have prickles only at the base of the shoots. Of climbers, *R. pendulina* and *R. macrophylla* are mostly harmless, and *R. banksiæ* is wholly thornless.

Many old garden hybrids are not armed, and from them a modern thornless group might be produced. *Rosa morica* is a big shrub with resemblance to the rose only when in bloom, whereas *R. spinulifolia* has prickles on the back of the leaflets only. The old Boursault roses (*R. l'heritierana*), as Amadis and Mme. Sancy de Parabère, are nearly unarmed, also the Hybrid Noisette, as Mme. Plantier, Boule de Neige, Coquette des Alpes, etc. These are not so decorative in bloom as the modern Hybrid Tea, but they rarely scratch. The Bengal rose enters into most of these hybrids, and Oriental Queen is a recent thornless Hybrid Bengal.

Many hardy climbers are practically thornless. There are Bengal forms, as Empress of China, Kathleen Harrop, Zephirine Drouhin, etc. Of Multiflora hybrids there are Auguste Finon, Diener's Blue, Goldfinch, Marie-Jeanne, I. X. L., Neige d'Avril, Hackeburg, Wartburg, Roserie, Tausendschön, and White Tausendschön, at least, which have very few thorns. Of Hybrid Wichuraianas there are fewer that are unarmed, yet try Baltimore Beauty, Dorothy Drowne, Dr. Huey, Marie Gouchault, Madeleine Lemaire, Papa Rouillard, Thelma, and perhaps others, but, as a rule Wichuraiana holds its armament. Auguste Roussel (H. Mac.) is thornless, and Climbing Ulrich Brunner and its offspring, Lucy Thomas. Some of the Climbing Hybrid Teas, as Bloomfield Exquisite, Bloomfield Comet, and Waltham Climber I, II, and III are nearly harmless. Lack of prickles seems to appear mostly in the Hybrid Multifloras, particularly when crossed with Bengal. It is rather hopeless to expect disarmament in Setigera or Wichuraiana.

In bush roses, many thornless sorts are known in Hybrid Perpetuals, as Ulrich Brunner, which has straight green stems like a giant kerria. Others nearly thornless are Gloire Lyonnaise, Mme. André Saint, Marguerite Guillard, and Louise Cretté. Unless the Hybrid Perpetual is coming back again to favor, it is idle to seek those which have gone out of cultivation.

Though thornless forms of Scotch roses have been known, it

is not probable that unarmed hybrids of Rugosa, Sweetbrier, or Austrian Brier will ever appear; and the Pernet hybrids are all of terrible temper. The Tea rose has fewer thorns, but these are fierce, hooked talons; and her progeny, the beloved Hybrid Tea, is usually also well armored. However, in some Hybrid Teas, perhaps where Bengal blood is evident, there are stems nearly as free from claws as on Ulrich Brunner. This list should be longer, but these are supposed to be safe or nearly so:

Charles P. Kilham
Chicago
Elizabeth of York
F. M. Vokes
Frank Neave
Generalin Isembart
Glorio
Grillodale
Irish Courage
Joan Howarth
John Henry
Josephine Thomas
Lady Florence Stronge
Ladylove
Lady Margaret Stewart
Lily Kemp
Lone Star
Mabel Jackson
Mabel Lynas
Margaret McGredy
Marion Cran
Monarch
Mrs. A. R. Barraclough
Mrs. R. B. Moloney
Mrs. Warren E. Lenon
Norman Lambert
Perfection
Pink Pearl
Polly
Premier
Premier Supreme
Rosemary
Sir David Davis
Southern Beauty
Templar
White Ensign
Winsome

The Polyanthas all have thorns, but some, as Echo, Floreal, Eva Teschendorff, Greta Kluis, Louise Walter, Helen Leenders, and Mme. Anth. Kluis are reducing their armament. If a thornless group of everblooming roses could be produced with the mass of bloom of Rödhätte, then rose-gardens would be like fields of bedding geraniums.

### III. COUNT OF ROSES

While the records of American efforts in rose-breeding are mostly fragmentary until the first appearance of the American Rose Annual, and producer and date of many good sorts are not given, still there is data in most cases. Of course, the center of rose-breeding has long been in western Europe and the British Isles, but at least a dozen Americans have done their part in producing the world's best roses. While the greatest total produced is Hybrid Teas, the most positive additions to the rose-garden are in Hybrid Rugosas and hardy climbers (Setigera, Multiflora, and particularly Hybrid Wichuraiana).

In all our love for roses, our enthusiasm is largely for Hybrid Teas, with the large-flowered, hardy climbers second. It is of

interest to tabulate the past and present count of the varieties that have been produced in the forty types. Of course, the figures are approximate. The total of listed varieties is fairly correct, compiled from the list of Simon et Cochet (1905) and the Annuals of the American and British Rose Societies since that date. For list of those in cultivation today I have tabulated carefully from catalogues since 1900 of American dealers.

| Abbreviation | Type Name | Botanical Name | Total listed | In cult. in America today | Total of American origin | Var. of American origin in cult. today |
|---|---|---|---|---|---|---|
| AB. | Austrian Brier | *Rosa fœtida* | 10 | 8 | 2 | 2 |
| Alb. | York | *R. alba* | 200 | 1 | | |
| Alp. | Boursault | *R. pendulina (alpina)* | 50 | 5 | | |
| Ayr. | Ayrshire | *R. arvensis* | 50 | 5 | 3 | 3 |
| Ben. | Bengal | *R. chinensis* | 500 | 10 | 3 | 1 |
| Bks. | Banksian | *R. banksiæ* | 30 | 2 | | |
| Bour. | Bourbon | *R. chinensis* × *gallica* | 600 | 10 | 7 | 3 |
| Brac. | Macartney | *R. bracteata* | 20 | 3 | | |
| Can. | Dog | *R. canina* | 20 | 1 | | |
| Cl.Ben. | Climbing Bengal | *R. chinensis* | 25 | 10 | 5 | 5 |
| Cl.HP. | Climbing Hybrid Perpetual | *R. borbonica* | 40 | 5 | 5 | 5 |
| Cl.HT. | Climbing Hybrid Tea | *R. dilecta* | 100 | 50 | 3 | 3 |
| Cl.T. | Climbing Tea | *R. odorata* | 75 | 20 | 35 | 25 |
| Cl.Per. | Climbing Pernetiana | *R. pernetiana* | 8 | 8 | 10 | 5 |
| Dam. | Damask | *R. damascena* | 300 | 3 | | |
| D.Pol. | Dwarf Polyantha | *R. multiflora nana* | 100 | 50 | 1 | 1 |
| Gal. | French | *R. gallica* | 2,000 | 20 | 1 | 1 |
| H.Ben. | Hybrid Bengal | *R. chinensis* × *gallica* | 300 | 12 | | |
| H.Bour. | Hybrid Bourbon | *R. chinensis* × *centifolia* | 40 | | | |
| H.Gig. | Hybrid Gigantea | *R. gigantea* | 20 | 20 | 3 | |
| H.Læv. | Cherokee | *R. lævigata* | 8 | 8 | | |
| H.Mac. | Hybrid Macrophylla | *R. macrophylla* | 1 | 1 | | |
| H.Mos. | Hybrid Musk | *R. moschata* | 40 | 25 | 2 | 2 |
| H.Nois. | Hybrid Noisette | *R. noisettiana hybrid* | 50 | 5 | 2 | |
| HP. | Hybrid Perpetual | *R. borbonica* | 3,000 | 50 | 15 | 5 |
| H.Per. | Hybrid Pernetiana | *R. pernetiana hybrid* | 200 | 200 | 15 | 10 |
| H.Pol. | Hybrid Polyantha | *R. multiflora hybrid* | 100 | 100 | 8 | 5 |
| H.Rug. | Hybrid Rugosa | *R. rugosa* | 75 | 25 | 30 | 20 |
| H.Sb. | Hybrid Sweetbrier | *R. rubiginosa* | 50 | 12 | | |
| HT. | Hybrid Tea | *R. dilecta* | 2,000 | 1,200 | 180 | 100 |
| HW. | Hybrid Wichuraiana | *R. wichuraiana* | 250 | 200 | 110 | 80 |
| M. | Moss | *R. centifolia muscosa* | 440 | 20 | 1 | |
| Mult. | Hybrid Multiflora | *R. multiflora* | 350 | 150 | 20 | 15 |
| Nois. | Noisette | *R. noisettiana* | 350 | 10 | 10 | 1 |
| Per. | Pernetiana | *R. pernetiana* | 100 | 50 | 3 | 3 |
| Prov. | Provence | *R. centifolia* | 400 | 10 | | |
| Prtl. | Portland | *R. portlandia* | 130 | | | |
| Semp. | Evergreen | *R. sempervirens* | 35 | 1 | | |
| Set. | Prairie | *R. setigera* | 50 | 10 | 35 | 10 |
| Spin. | Scotch | *R. spinosissima* | 200 | 12 | 2 | 1 |
| T. | Tea | *R. odorata* | 1,500 | 50 | 35 | 10 |
| | Totals | | 13,817 | 2,382 | 546 | 316 |

# The Genealogical Plot

By DR. H. VON RATHLEF, Halle a. S., Germany

EDITOR'S NOTE.—There is here pointed out by Dr. Von Rathlef a way to increase vastly the value of and the educational interest in rose plantings. The living story of Radiance, for example, would be intensely interesting, and so with other important roses. Elsewhere Mr. Nicolas touches upon a branch of the same idea. The greater rose-gardens could gain much in developing such plantings.

AMONG the many roses offered by rose firms, choice is not only difficult for the rose amateur who wants to plant a dozen beds of roses, but also for the manager of a large rose-garden who must maintain a definite standard of display.

The problem is comparatively easy for the amateur with a small garden who chiefly desires continuous bloom during the whole season. He will choose from the list of his favorite nursery the sorts which he knows to bloom most abundantly and continuously or those which are recommended to him; or he will leave the labor of choosing to the firm, after having given general directions about colors and purpose. In most cases he will get what he wants.

Selection is quite different for the amateur who knows how to choose and who takes an immediate interest in the different sorts as, of course, every real amateur does. This is especially true if he chooses not only for a general display or for special color effects, but also if he wants to make a collection of rose species, either to illustrate their abundance or the progress of rose-breeding. Selection will be very difficult for such an amateur because there is so much material. Shall the latest novelties be bought? Shall one class of roses be preferred; for instance, Hybrid Teas, or Polyanthas, or Pernetianas? And which among the hundreds of sorts?

The manager of a large rose-garden must answer just the same questions. The function of every public rosary is primarily esthetic, as it must offer a pleasant breath of nature for the populace after its working hours and satisfy and stimulate their love of beauty. Secondarily, it should inculcate knowledge of plants, especially roses. Accordingly, balanced effects of colors and quiet, clear lines should dominate, and the relationships

and the multitude of kinds of roses should be shown and demonstrated. Roses must be used as a construction material or as a painter's brush to achieve one, but to accomplish the other, each rosary must gather together as many sorts as possible. But with living objects such as roses it is impossible to assemble them without limit, as space and money are restricted. Even great rosaries are able to possess a complete collection of only a small part of the varieties which are in commerce, increased by some interesting, old, historical sorts and wild roses.

It is therefore necessary to lay down a plan for the proper organization of the roses, to guide in the work and as a goal to strive for. Completeness is the moving, sporting element in all collecting. Without considering the mere accumulation of as many sorts as possible, one could choose those novelties or sorts with the highest or the most points of distinction; or for the amateur with the smaller garden, those forms which he prefers. But the connection between the sorts will always be artificial, not founded in the nature of the object, a connection only stipulated by the purpose. It would be just the same if a collector of postage stamps would collect only the values of letters or imprints and totally neglect the classification in countries distributing them.

What principle for a collection of living things is the most natural and touches it the deepest? Without doubt, it must be the relationships between one another, not only as Teas, Multifloras, or Hybrid Teas, but also quite specially as families in lines of their descent. Children, parents, grandparents, and other ancestors should be brought together and arranged to show the relationships. Such would be a real plan of breadth and variety, to heighten the ideals of rose amateurs.

From these ideals comes the notion of a *genealogical plot* or *family plot*. As an example, the ancestors of Frau Karl Druschki were to be seen at the "Rosenschau" at Coburg, in 1929. The variety which gives its name to the bed is matched there with three generations of its ancestors. In a private rosary in the neighborhood of Magdeburg, where there are about 200 roses, a supplementary planting and transplanting occurred in the autumn of 1929, to join and demonstrate the pedigrees of

Sunburst and parts of the pedigrees of Frau Karl Druschki and Dr. Grill.

The possibility is afforded by this principle for the amateur to get a deep insight into the mysteries of nature—into the process of the infinite development of the organic world—if, for instance, he sees before him the evolution of Elvira Aramayo and Souvenir de Claudius Pernet through all steps, beginning with the simple Persian Yellow. He sees that salmon arises out of certain pink and yellow colors and that other colors are enhanced by one another, quite independent of the physical scale of colors; how certain forms of thorns or growths are regularly inherited, and so forth. This principle of selection can be adapted to every space and every financial situation. The amateur can start with one favorite sort and plant its ancestors and its most worthy and best recommended descendants, thus possibly uniting the "most beautiful." For instance, Sunburst, with its not very numerous but disproportionally large number of "grand roses" among its descendants, would give better results than many others.

A large rosary or a great amateur collection would include the second parent of all descendants after verification of the genealogical table as completely and clearly as possible. One would get a better insight into the occurrence of new sorts, which would interest visitors and surely attract them, and would also be the best sort of scientific material. There could be studied the transference of single characteristics and the dividing of the factors in transmission, especially if not only the sorts which are in commerce would be planted, but also those which are not, and the unnamed seedlings of one stem. From such material, conclusions could not be made with mathematical exactness, but relatively well-founded factors of inheritance may be observed, as the author was able to prove not long ago with the potato, in which the situation is very similar. Such plantations would be an actual substitute for the long and costly analyses of inheritance, otherwise only to be determined by breeding a great quantity of seedlings and hybrid-seedlings with full safeguards. Such security is most necessary to make progress in breeding, for without knowing which qualities of a sort are transmitted, we grope in the dark as to its influence

in breeding, even if the resulting seedlings show most beautiful form and color. By studying such rows of related varieties, the breeder would get at least a certain estimate of the breeding value of individual sorts and their effect upon their descendants. Many practical breeders, of whom a great number think most skeptically about the laws of heredity and the possibility of tracing descent, would be convinced by seeing the facts, and could avoid many a blunder and much expensive and unnecessary labor.

It would be well, in undertaking such genealogical beds, if they could be begun with a sort of mutual work in different gardens, in order that not too many repetitions of the same genealogical table should occur. This could be easily arranged through the central rose societies of each country: in America, the American Rose Society; in Germany, the *Verein Deutscher Rosenfreunde;* in France, *Les Roseraies de l'Hay.*

Most large and small rosaries and amateurs' gardens already possess the foundation for several genealogical stems, and it would be necessary only to buy some missing sorts and do some transplanting of varieties in order to exhibit relatively large groups of relations. In the already-mentioned private rosary in the country about Magdeburg, only six to eight new sorts are necessary to complete the stems of Sunburst, Dr. Grill, and Frau Karl Druschki, and to fill up the voids between other existing sorts to restore the connection between about thirty sorts—that is the third part of the stock. The first roses were bought there without thinking about parentage.

It will be objected by many, in regard to these ideas, that we do not know enough about the descent of roses, that our knowledge is too incomplete to guide us to a general principle. Against these objections it may be said that the ancestry of a great many of the roses which are and have been in commerce is known; it has been necessary only to go to the labor of gathering these indeed very scattered statements to develop a great many genealogical tables, which often extend over four to six generations and embrace many hundreds of sorts in each. This labor was executed by the author in connection with the Editor of the *Verein Deutscher Rosenfreunde*, Professor Gnau, at Sangerhausen. The material is now so far in order

as to discover the connections of many varieties and to propose the purchase of the omitted members to complete the relationships. The German *Rosenzeitung* began in the July number to publish this material. The publication of all genealogical tables in one volume is intended eventually, but it will take a long time to accomplish that intention. As long as it is not done, the German journal will print in each number new genealogical tables and bring out the necessary supplements later. The author is also ready to reply to anyone who asks for information.

Another objection to the genealogical bed would be apprehension that the aspect of the garden would be most irregularly variegated and disturbing, without harmony of color. It is quite right that the impression would not be as uniform as an esthetic person may wish, such as is achieved by planting only one sort. But in every rosary a mingling of color is unavoidable and always exists, and is more or less balanced if roses of the same color and type are planted together. This balance of color and form is inherent in the genealogical beds, as, for instance, the genealogical table of Sunburst which contains almost all yellow and salmon varieties. The very large Druschki-stem shows all colors, and in it there could be easily combined a delicately graduated bed in colors from white up to darkest red, without interruption of the connection. Isolated exceptions, especially by the introduction of the second parent which may not belong to the same genealogical table, must always occur, but have to pass for the sake of the internal connection. Thus the objection of the esthete seems fairly well refuted.

As most amateurs desire variety and most rosaries follow the collector's principle, the idea of the genealogical bed and the assembling of families or stems seems to give a useful design—a plan and a principle is established which connects the modern city man in a deepened way again with nature, and which should accordingly find wide acceptance.

# Hybridizing Roses without a Greenhouse

By JOSEPH LAVENDER, M. B. E., Past President Prestatyn Horticultural Society, Plas Gwyn, Prestatyn, Wales

EDITOR'S NOTE.—Our Welsh correspondent has simply and interestingly given us the details of outdoor hybridizing. It is to be hoped that many American friends will seek similar experiences. The doing of this home rose-crossing without expensive fittings or fixtures is surely worth while.

IN treating the above entrancing subject, I do so as an amateur rose-grower only, and as a mere novice in the art of hybridizing. I have no greenhouse or garden frame. Only in the open garden do I grow my few roses. About four or five years ago I thought I would try my hand at hybridizing, notwithstanding the fact that professionals said it could not be done in this country without the aid of a glasshouse. Still, nothing daunted, I had a try at it. The result has been both a wonderful and a delightful surprise to me. I hope other amateurs may be induced to try their luck, too.

With this hope in view, I will endeavor, as clearly as I can, to relate my *modus operandi*, which is both simple and interesting. One great thing needed is patience for the first year till, as it were, the wheel has once turned round, bringing with it the first seedling; then process after process will follow as "the wheel" revolves, thus keeping up continual interest and excitement.

As soon as any roses show bloom in my garden—perhaps the middle of June—I look to see if there are two that might make a good cross—say two different reds, or a red and a yellow, or perhaps a red (or yellow) with a multicolored one (not a white and red, or I might get a washed-out pink as a result). The one which is to be the seed-bearer is just beginning to open its petals, *but only just.* With my thumb and finger I pull off all its petals, taking great care not to damage its pistils, *i.e.* the fine, upright growths in the center of the bud. These, it will be seen, are surrounded by another row of growths, called stamens, on the tips of which the pollen necessary for fertilizing is carried. Now these stamens, at the stage we have reached,

are not ripe, but if the bud had been allowed to grow into a full, or nearly full bloom, they would have been, as the pollen would then have been a dry, powdery substance which would have dispersed itself all over the heads of the pistils, for they would also be ripe, *i.e.* sticky, at the same time. The result would be that a seed-pod of that one particular rose would form. But, as I want to get quite a new rose, by crossing the one I have stripped of its petals with another and different rose altogether, I tackle it before either stamens or pistil are ripe at their tips. Having pulled off the petals, I use a small pair of fine scissors to cut off all the stamens which, it will be noticed, spring from a slightly raised rim on the outer edge of the bud, but quite separated from the pistils, although it will often be found that some of the stamen-heads are buried among the pistil growths. These I pick out carefully with the points of the scissors, for not one must remain.

Now we must remember that the pistils at this stage are unripe and unable to hold pollen from another rose for another day or two. Meanwhile, protection must be provided against rain or insects (the latter might carry foreign pollen), so I get a tissue-paper bag or thin piece of tissue-paper to cover over the bud, twisting the lower part around the stem, below the bud, and tying it with string. Then I stick in the ground, around the bud, two or three bamboo canes, leaving the top ends about an inch above the top of the paper bag; over these canes I slip a small glass jam-jar or other glass utensil. So, in its own little cosy "greenhouse," protected from rain, insects, and cold, the prepared "seed-bearer" is safe until its pistil is ripe.

On the following or third day I remove jar and bag, and, with the aid of a small magnifier, I see if the ends of the pistils appear glistening: if so, they will be sticky (ripe) and ready for the pollen. So I replace the jar while I look around for a full, or nearly full bloom, of a suitable color from which I can extract ripe pollen, *i.e.* powdery. If I fail that day, I try again the day following, as the pistils may not be too ripe even then.

But supposing all goes well and both pistil and pollen are ripe. Then I take a small pair of tweezers—such as one finds in a dressing-case—and with an egg-cup or similar little utensil gripped firmly in my left hand I attack the full-blown rose

(after testing for ripeness by pinching a stamen to see if dust comes on my finger), nipping off all its stamens and dropping them into the egg-cup. Then I go to the prepared bud, uncover it, and by means of a small camel's-hair brush, which I dip in the egg-cup, stirring stamens round and round, thus picking up the pollen on the brush, dab the brush well on to the pistils. This operation I repeat till I can see the brown pollen on the pistils. Then the trick is done! But I replace paper bag and jam-jar as before, and after three or four days more I remove the bag, but replace the jam-jar till I gather the pod, about the beginning of December, when it will probably be turning a reddish color and be a round shape, or it may be still green, and almost the size and shape of a small pear.

Having gathered all my pods, leaving about 1 inch of stem, I label each one, noting the cross, *e.g.* "Sunstar × Alfred Colomb," and push the stems into a dish or pot of damp sand (to be kept damp) till about Christmas-time. Then I sow in a wooden box (about 12 by 8 by 3 inches) filled with soil composed of leaf-mould (rotted leaves) and old turf in equal proportions, mixing a little sand with it. This compost I sterilize before use, by adding sufficient water to enable me to put it into an old sauce-pan and boil it, afterward spreading it out to dry. I fill the box with this, to within half an inch of the top, after pressing it down firmly and evenly, making little grooves about ¼inch deep in the soil, and about 1¼ inches apart all along the box and from side to side, by means of a narrow lath. I then take the seed-pods, one at a time, pulling off carefully their outer shells, and put the seeds, one at a time, in the little channels, and about 1 inch apart. I cut a V nick on the side of box opposite each seed-row, and make a pencil-line on the side of the box to match; I put a large A, B, C, etc., mark, to distinguish the position of contents of each seed-pod, keeping a similar record in a little notebook, *e.g.* "A—Sunstar × Mme. Abel Chatenay, 18 seeds." Having covered the seeds over level with soil, I sprinkle a thin layer of sand over all, and spray well with a spray syringe. I cover with a sheet of glass, resting on the sides of the box, and finally place it on the top shelf of the airing cupboard in my bathroom (where the hot-water cylinder is) examining daily and spraying when necessary, till I see the first

seedling poking through, which may be in a few weeks' time. Then I get excited, because I know from experience that other seeds are likely to come through any time during the next two years!

As soon as the first pair of leaves—called "cotyledons"—are well grown, I fill a 3-inch pot with soil similar to that in the box, make a suitable hole with my thumbs, and then, with a penknife, I cut carefully around the seedling, and about ¾inch from it, as deep as I can, and by gentle humoring raise the seedling, with a little soil, and place it in the pot, filling in gently but firmly with soil, and after giving it a thorough soaking with tepid water, and sprinkling a little fine, dry sand around the seedling, I place it in a warm room near the light, covering it for a few days with a small glass jar. But when darkness comes on I give it a home also in my airing-cupboard till morning, when it comes into my sitting-room or kitchen again till bedtime.

This process goes on till the seedling produces its first bloom—another great excitement. If of a poor color it can be thrown away, but this I find a rare occurrence. But if the color is good, notwithstanding that petals may be few or faulty, I take courage, knowing that not till it has been budded on to a stock, and bloomed, can one be certain as to its size, fullness, shape, or scent.

So, taking it for granted there is no serious defect in the seedling bloom, I cut the latter off and bud as many eyes as I can find below it, on to a dwarf stock, and about an inch below the soil. The stocks I have found most satisfactory and easy to bud on are from cuttings of the American Pillar rambler, which I stuck in the ground the previous autumn, or two years ago (if I have any such), as they are better, having of course previously cut out all the eyes except two at the top, to prevent suckers. I bud from beginning of June to mid-September, often getting a bloom the second season. I would like to explain my method of budding these minute buds, but space will not permit. Good luck to you, Brother Amateur!

# Treatment of Climbing Roses

By A. J. FISH, New Bedford, Mass.

EDITOR'S NOTE.—Of Mr. Fish's competence and experience there can be no doubt, wherefore the surprising things he writes about pruning and transplanting are the more important.

WHEN I commenced to grow roses, I read all the books available, talked with all the gardeners I met, and found the information about climbers very limited and confusing. As this was before the advent of Crimson Rambler and Dorothy Perkins, it is not so much to be wondered at, for at that time there were very few climbers in commerce. Baltimore Belle, Seven Sisters, and a few of the Prairie Queen family represented the best of those available. So, having grown climbers before the beginning of the present marvelous race, I feel, in a certain sense, as if I have grown up with them.

My theories and heresies about rose-growing were conceived and tested to my satisfaction in southern New England, which, we often feel, has the most variable climate of any of the colder parts of the United States.

Sometimes the temperature does not go below zero in the winter, but occasionally it reaches 12° below, and one winter it went down to 18° below. When it is snowing inland, we get rain most of the time. Broken, or open, winters are the worst. It is hard to carry roses through them without loss.

All the protection I give my climbers is horse-manure applied after the ground is frozen, and one of my heresies is that horse-manure is better than cow-manure for roses.

When I decided that climbers were the best roses for this climate, I began to make a collection of them. At one time I had sixty-five varieties. I got Silver Moon and Dr. W. Van Fleet the first season they were put on sale, planted them in June, and exhibited them the next June in New Bedford, the following June in Boston, and for several years after. Once, before the war, I imported a bill of climbers from Alex. Dickson & Sons, Ireland, and they arrived in January. There was no frost at the time, so I heeled them in until spring, and as it was a mild winter, I had no losses.

I had quite a collection of M. H. Walsh's ramblers at one time, but as they all bloomed too late for the rose shows, I did not have garden room for them, so I had to get rid of most of them to make space for the early varieties I could exhibit.

My garden is not an *exhibition garden*. Most of the bushes are grown in their natural habit, like shrubs. Garden appearance is sacrificed to get quantity and quality of roses, making it a garden of *exhibition roses*, instead of a garden for show.

Exhibiting is a disease—once you catch it, you never recover from it!

I have been growing and exhibiting climbing roses for many years, and have never used any other than the flowers' own foliage, and I have never entered them in the amateur class—always in the open class or exhibition. I have a gold medal from Providence, two silver medals from Boston, three silver medals from Newport, and one silver medal from New Bedford. Medals are not given for any exhibit unless it is worthy of them. That proves, I think, that my roses have had good foliage at exhibition-time.

I have done no spraying of any kind except to use city water from a hose with good pressure.

Rose-growers told me that mildew came from excess of rain or fog. We have plenty of both here in the spring in normal seasons, but we have no mildew as long as the bushes keep on growing. Midseason drought in August is mildew-time.

Thus during the summer drought is the time to look out for mildew and insects. The bushes start off in the spring to produce a very large crop of flowers and a spring growth of new wood for next year's blooming. When the August drought comes, they stop growing and take a rest. While in this semi-dormant state, the necessary pruning must be done, the less the better. It is also the best time to dig and move the bushes, for I believe in early fall planting for cold New England—September 1 or last of August.

Never have I lost a bush moved then, if properly handled. I dig carefully and get as good roots as possible. If the bush is good size, the large roots are sawed off, allowing a length of 2 feet. This is to promote new root-growth. As large a top as possible is left—6 feet or more—in order to have plenty of old wood for next June's blooming. The foliage is also left on, to

breathe for the bush, which will not make any new growth that fall. The roots have a long season to grow and get well established for wintering. I plant them without any fertilizing; the plants are too sick then to feed. If the soil is dry, the roses are puddled in when the hole is half full of soil; and after treading it down, the hole is finished with dry soil and mulched with peat-moss. The plant should not need any more water if the September rains come on time.

On one occasion I moved one of Walsh's ramblers, cutting the top down to about 8 to 10 inches. I grew it for four years but could never get a new top, only a few short, weak stems. Then it died. It had good roots when I moved it, too. It was pruned too hard, and that made an unbalanced bush of it. I have had the same trouble with other varieties, especially with Prof. C. S. Sargent. Now, I don't prune any of the climbers, only cut out the dead wood.

In August, 1927, I moved 100 large climbing roses to a new place, planting them on the east side of an old wall. The soil was heavy, with plenty of clay in it, and there had been some rain that month, so I planted them without watering or manuring. They had pruned roots and large tops. There was no top-growth that fall, no loss of wood that winter, and I had a splendid crop of roses from them the next June.

The same fall, an order of 500 climbing roses from a reliable nursery was set out, after October 15. They were fine, large bushes, but the winter losses were 40 per cent. October 15 is too late to plant in New England, but the nurseries will not dig until that time, as they want to wait for the bushes to finish their fall growth. The question is: What shall it profit a man to wait for fall growth if by so doing he will not only lose that growth, but also the whole bush from too late planting? In southern New England, at least, our losses average 40 per cent from late planting, and that is too much. I hope to live to see the day that some nursery will grow roses for New England and be willing to deliver by September 1.

Another of my rose heresies concerns pruning, or rather *not pruning* for a number of years at least.

I have a yellow climber here, Prof. C. S. Sargent, grown on a horizontal trellis about 3 feet above the ground, that has not

been pruned for fifteen years. It has a spread of 40 feet and produces splendid, long-stemmed roses with beautiful foliage. This is the best and hardiest yellow climber ever put out for cold New England, if left alone when once established.

One time a gardener for one of the estates here got a bush of it from me and grew it for ten years. When he got one flower, his employers were wild over it. The gardener told me it was a pity it was such a shy bloomer. I asked him to come up to my house to see one that was not a shy bloomer. When he saw it, he was amazed. I estimated my plant bore about 3,000 roses; he said there were nearer 5,000. He had been pruning his bush every year, and also using its foliage freely in bouquets.

Some curious things are done in the name of pruning. I know a gardener here that cuts all the new spring growth from his Silver Moon, clear to the old stem, every year when it is in bloom. After it is through, he cuts back the whole plant, throwing away over half of the bush every year.

I have calls on the telephone from worried owners of estates, asking if it is right to cut out those new growths when the buds are forming. The gardeners say they are no use as they are not budding, and frequently cut them before the owners find out.

I have a Japanese Multiflora grown from a single stalk planted in a meadow fifteen years ago. The clump is now 90 feet around and 13 feet high in the center. This shows how climbing roses will grow if they are left entirely alone.

We also have a bush of Alberic Barbier grown the same way as the Prof. C. S. Sargent. It has a spread of 30 feet, with thousands of flowers smaller than the Sargent blooms. This variety has been giving us a few flowers all fall. Other roses that have bloomed quite freely this rainy autumn are: Gerbe Rose, which is a strong, sturdy bush with a fine pink flower, somewhat like Christine Wright, and should be in every good collection; Paul's Scarlet Climber; Birdie Blye, which will bloom continually all season, and the October and November roses are better than those it gives in June; Christine Wright, and Dr. W. Van Fleet which had a few flowers in September and October. A bush of Conrad Ferdinand Meyer, 13 feet high, had 152 fine blooms in June, 1928, but this last June it bore only about 12 poor flowers as the result of being pruned.

# Rewards for Budding Roses at Home

By WHITMAN CROSS, Chevy Chase, Md.

EDITOR'S NOTE.—Chevy Chase is really Washington, D. C., which statement will locate Mr. Cross' lovely garden, long a Mecca for the Editor. The experiences detailed and the suggestions made should encourage many other gardeners who really garden directly, rather than by proxy.

THE suggestion that I should give this review of experience in home budding and summarize the rewards I thus far recognize came from Dr. McFarland. His wide acquaintance with private gardens apparently leads him to believe that far too few amateurs are alive to the interesting possibilities in this direction. I am all the more glad to respond because of the inspiration and assistance I have received from him and his associate, Mr. Stevens.

It may be well to illustrate the backwardness of the American amateur in rose-growing by citing the remarks of Miss Kingsley in her lovely book "Roses and Rose Growing."* In describing the process of budding roses, she remarks: "This is the best-known method of propagating," and, further, "It is widely practiced by amateurs and gardeners of all degrees. . . . With a little practice anyone with neat fingers can bud." English gardeners have done it for generations. Let us be equally enterprising!

Budding in my garden was undertaken to see what might be accomplished in remedying certain troubles which are presumably not uncommon. I have never been reasonably satisfied with my rose-beds, referring now particularly to the Tea, Hybrid Tea, Pernetiana, and Hybrid Perpetual groups. There has never been that approach to uniform health and vigor in growth, or excellence in quality and quantity in bloom which seemed to me reasonable to expect in a well-situated, carefully cultivated garden, where pests and diseases are held in tolerable check.

To replace all inferior rose plants by purchase and to add the new varieties desired is too expensive for most of us, and is often quite a lottery as to results. So, stimulated by the clear

*"Roses and Rose Growing," by Rose G. Kingsley, The Macmillan Co., New York, 1908.

expositions by Nicolas* and Bilon† in the Rose Annuals for 1924 and 1925, showing the practicability of the budding process for almost anyone who has "neat fingers" and a little perseverance back of the desire for better roses, I resolved to see what budding could do for my garden. I should here refer to the helpful article by Dr. Bramble‡ in the 1929 Rose Annual describing his experiences, including the growing of Multiflora understock from seed, and also the illustration of the budding process in Chapter II of the new edition of "How to Grow Roses," by Pyle, McFarland, and Stevens, 1930.§

Fortunately for my plan, I have associated with me a well-trained gardener, Mr. N. J. Hansen, familiar with rose-budding and grafting processes, and I take pleasure in acknowledging that I am mainly indebted to him for the successful work done in the last three years, as well as for many helpful suggestions. However, I have myself done enough to show that the owner of a smaller garden with up to 200 to 300 roses can learn to do the same things for himself.

Budding really began in the summer of 1927, to meet an emergency. In June, August, and September I secured three lots of budding wood from thirty varieties of roses new to me and mostly not in the market. I had no regular understock to use, and it may be suggestive to tell how the situation was met, as failures and successes are alike of value to others. The main object was to keep the new roses alive and provide for growth in the next year.

I found two large *Rosa multiflora* shrub plants available to receive these buds, a number of Multiflora volunteers, already transplanted into beds, several climbers, including Freedom, Klondyke, Prof. C. S. Sargent, Aunt Harriet, Miss Helyett, and an unknown wild rambler. A wide distribution of buds was made upon the different "stocks" as insurance against total loss of any kind.

The result of budding in June and August led to some growth

*"Budding and Breeding Work for the Rose Amateur," by J. H. Nicolas, American Rose Annual, 1924, p. 37.

†"Rooting Budded Rose-Cuttings," by Martin Bilon, American Rose Annual, 1925, p. 65.

‡"Propagating Roses at Home," by Dr. C. C. Bramble, American Rose Annual, 1929, p. 25.

§"How to Grow Roses," by Robert Pyle, J. Horace McFarland, and G. A. Stevens, 17th edition, entirely rewritten, The Macmillan Co., New York, 1930.

—fine in a few cases—of all but two or three kinds. Of a few delicate varieties this growth winter-killed. The budding in September was only intended to provide live, dormant buds for the next spring. There was great loss of these buds, many of which were immature and the stock in unsuitable condition or not adaptable for the purpose. The best results of all this emergency propagation were naturally obtained from the Multiflora bushes and volunteers and from the unknown rambler. But little good growth was secured from the climber stocks, aside from three sorts placed on Freedom.

The results on the two Multiflora shrubs, each 6 to 8 feet high, are of special interest. One of these grew against a gray stone wall 4 feet high, surrounding a perennial garden, on the outside. All but seven of the healthy shoots of this bush were removed and on these were inserted, at the level, twelve buds of the Australian climber, Scorcher.* This was in August. All implanted buds grew, and by November there was a total growth of about 40 feet. In 1928 this became a vigorous climber, and by the season of 1929 covered the wall for a length of about 25 feet. It bloomed abundantly.

The other Multiflora bush received buds of eight varieties of Hybrid Tea and Polyantha types, in early September. Some grew and bloomed before frost. In 1928 this bush became a "sure enough" freak, attracting much attention and serving admirably as the basis of many explanations of the process of budding and illustration of results. It provided much good wood for further propagation and has now passed on.

In the season of 1928 there were secured 150 plants of Multiflora which were used as understocks, mainly for three groups of roses, namely: further desirable new things not in catalogues, a group of rose species, for experimental purposes, and to propagate from our own wood the varieties that had succeeded on the motley lot of foster parents of 1927.

In the past season still more stock plants have been budded in the open, using only wood from specially vigorous and favorite roses of my own or neighbors' gardens, and from new growth of nursery plants. The last work has been to bud

*The superb results attained with this treatment of Scorcher can be imagined as one looks at Plate IX, facing page 72, resulting from a photograph made May 2 last by the Editor.

selected things in a 10 by 14-foot lean-to greenhouse against the garage. It is amazing to see how much can be done in such a small space.

Aside from the main lines of propagation by budding already discussed, there are various other directions in which gardeners may benefit by their own experimentation. I will mention here only the home growing of standard or tree roses which, while not common in America, today are desirable additions to our gardens. American rose books do not mention this as a possibility. English books treat the standard like the others, as easily grown by the amateur, because he has only to go out and gather his standard plants of *Rosa canina* from the hedges.

The common standard used by American nurserymen is *R. rugosa*, which, though said to be long-lived, is awfully thorny, often knotty and crooked, and suckers abominably. One use of budding in my garden has been to make over purchased rose trees that were unsatisfactory, by inserting other scions in the head, and with success. We also have several promising trees the standards of which are *R. multiflora*, chance hybrids of Multiflora, or American Pillar climber, all home-grown. Various other stocks are to be tried and, at the worst, anyone growing the Rugosa species or hybrids may have a wealth of suckers to train as standards.

Reviewing now the advantages that have come or are in immediate prospect to one rose-garden, chiefly through the practice of propagation at home by budding, the main ones are as follows:

(*a*) A method has been found to plug up many of the holes and weak spots in the rose-beds. A few nursery rows, where costly, low-grade vegetables once struggled along, are now providing substitutes for roses that we find in any way unsatisfactory.

(*b*) The way is clear by which I can improve the grade of my roses by my own selection, from all available sources. For example, I already possess a finer plant of Rev. F. Page-Roberts, by budding from one found in a neighbor's garden, than I have secured in several years from eight purchased plants of the same rose. I am thus avoiding bud deterioration.

(*c*) I am now able to test and perpetuate, if desired, the

interesting seedlings, sports, and possibly improved strains of various types, liable to appear in any garden, or to rescue a favorite yielding to disease or accident.

(*d*) I can afford to buy and test a larger number of the costly introductions of new and (according to the catalogues) wonderful roses offered by commercial growers, because of the saving due to the replacement at home of dead or failing plants.

(*e*) A field of experimentation, fascinating in itself and possibly of general importance, is now open. I have referred to the problems of tree roses, and in particular the discovery of suitable standards. Familiarity with the budding process has led me to enter also into the alluring search for new and improved roses from seedlings, self-sown or self-set, and from seeds of crosses made in my garden. Some may flourish on their own roots but the majority will no doubt gain vigor on a strong understock.

(*f*) The carrying out of these (to me) new lines of rose-propagation has been great fun, the results so far very satisfactory, and anticipations, while no doubt too highly colored, are very agreeable.

If several hundred members of the American Rose Society should, during the coming season, begin the propagation of roses in their own gardens it would mean a great advance in the cultivation and improvement of our favorite flower. To paraphrase some expressions of Dr. McFarland, it must result "in better plants of both old and new roses, budded on the best stocks from known, selected, choice and healthy plants." The limits of such a movement can scarcely be foreseen, nor can we more than guess at the effect on some of the new varieties, now so frequently degraded by propagation from immature buds.

The benefits to the rose gardener have been dwelt on in this discussion, almost exclusively, but in the long run they can hardly be less to the commercial grower who is both interested and wise, as some of the leaders surely are. With increased knowledge, discrimination, and skill on the part of the gardener will come a demand for a higher standard of product from the nursery, and corresponding benefit to those who meet it.

# Rose Understocks in Tennessee

By J. A. McCLINTOCK, Horticulturist and Associate Plant Pathologist
University of Tennessee Agricultural Experiment Station, Knoxville

EDITOR'S NOTE.—Important comment is here made upon available understocks, in the direction of local adaptability. The work begun in Knoxville toward obtaining nematode resistance can have great value. It is unfortunate that the American Rose Society has no funds available to underwrite an investigation of much potential importance.

THE root-knot nematode, or eelworm, causes serious losses to rose-growers generally, and is especially harmful to commercial growers of greenhouse roses.

Our tests with rose understocks were started in an effort to determine if any of the stocks in commercial use had marked resistance to this parasitic worm. We were also interested in determining the relative vigor and disease-resistance of various stocks under Tennessee conditions. Our original materials were obtained from commercial nurseries and from the U. S. Department of Agriculture. We have found that there is much confusion regarding the names of understock varieties.

*Rosa manetti*, the most extensively used stock at the present time, appears to be a uniform, well-accepted type. This is probably because it is chiefly produced from cuttings. In our tests, Manetti has been the weakest grower of all the varieties. After five years' growth without pruning, Manetti plants average 3½ feet high with a spread of 3 feet. On the whole, Manetti does not seem desirable as an understock under Tennessee conditions.

*Rosa multiflora*, which is produced from both cuttings and seed, has several varieties or strains which differ somewhat in habit of growth and color of bloom. While the ordinary Multiflora has white flowers, there are several pink-flowered plants in the test-block at the University farm. There are also some late-blooming types entirely different from the ordinary Multiflora. In its various forms, Multiflora is one of the most vigorous growers under test at Knoxville. After five years' growth without pruning, it measures 8 feet in height with a spread of 25 feet. While rather thorny, Multiflora appears to be one of the best stocks tested thus far.

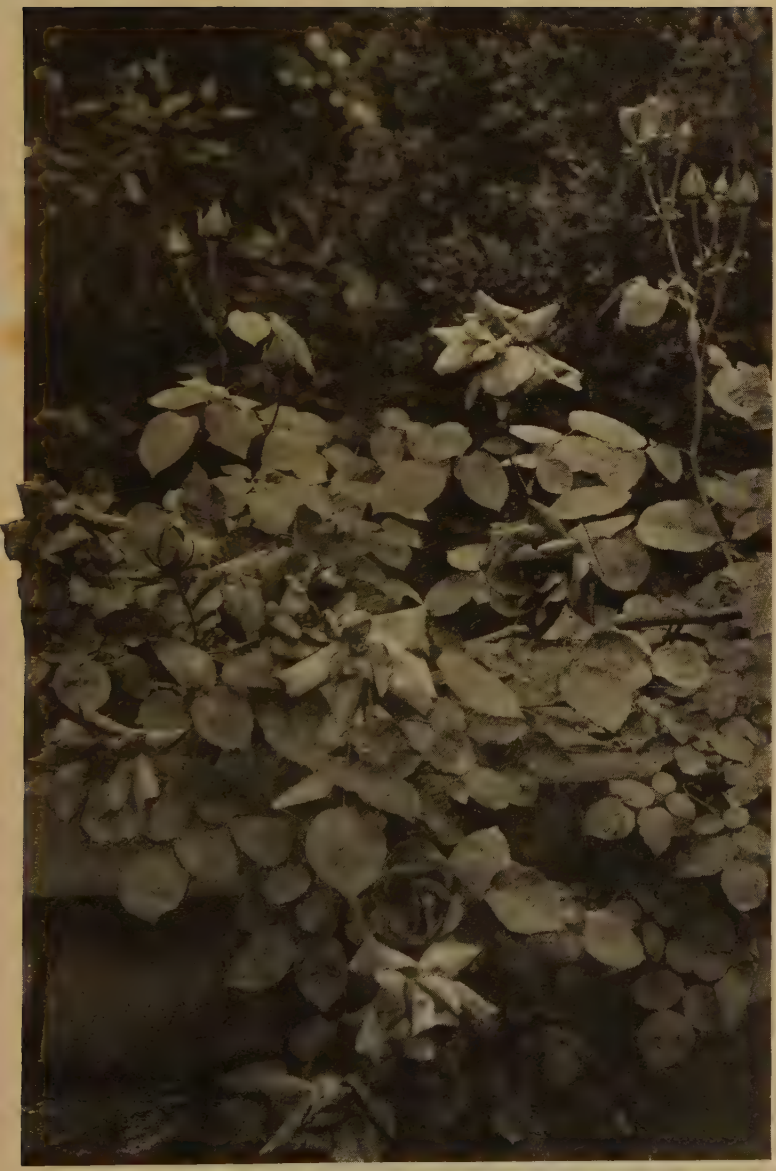

PLATE IX. The old Multiflora which Mr. Cross transformed into SCORCHER, as he tells on page 69
Photographed by the Editor

PLATE X. DAINTY BESS, HT., a very charming new single variety of which the Editor is fond

*Ragged Robin*, or Gloire des Rosomanes, extensively used in California, has proved only fairly vigorous in our tests. The five-year-old unpruned growth measures 6 feet in height, with a spread of 4 feet. This stock is reported not to be as hardy as Multiflora in the northern states. Ragged Robin is the only stock at the Knoxville Station which blooms in both the spring and the fall. If this characteristic of the stock has any effect on the budded or grafted tops in stimulating continuous blooming, as has been suggested by some writers, then this, above all stocks, is preferable for roses which are expected to bloom throughout the summer. This suggests a fertile field for intensive research on the effect of stock on scion.

The thornless variety of *Rosa canina* is so distinct in leaf characteristics that it could not be confused with other understocks. While this thornless Dog rose is not entirely free from thorns, there are never enough of them to be troublesome. In our tests, the thornless Canina has proved only fairly vigorous. During the five years in the test-plat without pruning, it has reached a height of 8 feet with a spread of 12 feet. Its root-system is relatively poor, and cut-flower varieties budded on this stock have proved to be rather short-lived here.

*Rosa cinnamomea* was included in our test-block as a thornless stock, but thus far it appears to have more thorns than the thornless Dog rose. It has been in our test-block only two years, but appears to be vigorous. This stock is being used farther south and may prove desirable for Tennessee conditions.

There is much difference of opinion among nurserymen as to whether Canina and Texas Dog are the same. The Canina and Texas Dog stocks which we obtained from a reliable Texas nursery are vigorous, almost rank growers, well supplied with thorns. In our test-plat, Canina and Texas Dog appear to be the same. The unpruned plants, after five years' growth, are 8 feet in height with a spread of 15 feet. Both are different in date, type of bloom, and abundance of thorns from the Odorata which we obtained direct from the U. S. Department of Agriculture.

*Rosa odorata*—the form sent out from Washington as "Odorata 22449"—is a vigorous grower and relatively free from thorns. It is a free bloomer and sets numerous fruits. During

the five years of unpruned growth in the test-plats, Odorata has reached a height of 8 feet with a spread of 10 feet.

From the standpoint of vigor of growth Multiflora has been outstanding in our test-plats. If by budding or grafting the weaker-growing cut-flower varieties on such vigorous stocks we could get the benefit of this extra vigor we would add much to the prospects of successful rose-culture. Tests along this line could be conducted if funds were available for carrying on such work.

The chief purpose for which we started this experiment, namely, to find an understock resistant to root-knot nematodes, has not been successful. All the stocks tested are more or less susceptible to root-knot, but they are quite resistant to mildew. Therefore, from the standpoint of obtaining a root-system free from root-knot, the cut-flower roses budded or grafted on any of the above-mentioned stocks are no better than the same cut-flower varieties on their own roots, *i. e.* grown from rooted cuttings.

Our failure to find a nematode-resistant rootstock among those commonly used for propagating roses has led us to grow rose plants from seed. In so doing we are making use of the data obtained to date, and are saving seed from the vigorous Multiflora and Odorata stocks, rather than the weak-growing Manetti stocks. By growing a large number of seedling rose plants in nematode-infested soil, we may obtain one or more plants which are resistant to nematodes. Such resistant stock, once obtained, could be multiplied by cuttings and a superior strain of understock thus developed. Nematode-resistant stocks have been obtained in the case of fruits, and, if opportunity is afforded, as much could be done for roses. At present the American Rose Society is financing the study of troubles affecting the parts of roses above ground, such as mildew, black-spot, etc., and worthy progress is being made along this line at Cornell University. Before definite progress can be made toward the improvement of rose understocks along these lines, concrete support in the form of funds must be allotted to the project.

# Rose-Disease Investigations

## FIRST PROGRESS REPORT

By L. M. MASSEY and L. J. MEYER, Cornell University, Ithaca, N. Y.

EDITOR'S NOTE.—This "progress report" should convince those who have contributed to first season's work in the four-year arrangement with Cornell University, detailed on page 9 of the 1929 Annual, that their liberality is justified, and that the support must be continued and increased. Cornell University not only assures the quality and impartiality of the work, but itself bears a full half of the cost. It would be most ungrateful if the very large contribution made to this work, in the ideal facilities freely afforded by the Conard-Pyle Company, were not here acknowledged.

ACTIVE prosecution of investigations under the terms of the fellowship established by the American Rose Society with Cornell University began on April 1, 1929, with the appointment of the junior author as Fellow. In keeping with the plans discussed at a meeting of the Trustees on September 20, 1928, arrangements were made to establish a field laboratory and conduct experiments under field conditions, making our approach through the applied aspects of the problems. Facilities for conducting tests were graciously extended by the Conard-Pyle Company of West Grove, Pa., along with a satisfactory room for a field laboratory. The experimental plats, involving some 3,000 roses placed at our disposal, were located at Jennersville, just out of West Grove, and a small but encouraging number of rose-lovers visited the experiments during the summer to note the progress being made.

The field experiments conducted this first season were planned with two main points in mind, namely, the development of better, less troublesome, and surer methods of controlling black-spot and mildew, and the search for an effective and practical control for the three canker diseases, brown canker, brand canker, and common canker. Tests were made with the more promising types of fungicides, those which either were standard or seemed to possess some attribute that commended their use for the objects sought. In some few instances, recent introductions in the list of materials toxic to fungi were included, largely because considerable interest in them had been indicated by members of the Society. With the array of

materials tested, and under the conditions which obtained, the relative merits of the fungicides were certain of being indicated by the results to be reasonably expected. A sufficient number of applications to provide ample protection at all times were made, the plan calling for the testing of materials under advantageous circumstances rather than determining at this time the minimum in amounts and number of applications that are necessary. Such points will be determined later when the list of materials has been reduced to those most effective and least objectionable.

The main experimental area consisted of seven rows of one-year-old plants in the nursery, about 280 feet in length. The varieties included in the tests were Dame Edith Helen, Souvenir de George Beckwith, Mme. Butterfly, Edel, and Lady Alice Stanley. Each plat comprised a section of row 10 feet in length, including some eleven plants. Eleven different treatments were made and three plats were maintained as checks. Each material or treatment, together with each check, was repeated fourteen times, to overcome differences in location, soil-variation, etc. Twenty applications were made during the period from April 28 to September 6, to keep the new growth covered and replenish the materials dissipated by rain. Of the materials used, four were copper-containing fungicides, three depended on sulphur for their fungicidal efficiency, and one was an arsenic compound. Three were dusts and five were sprays.

The results were tabulated in September and October. Counts were made of the number of diseased leaves and leaflets on at least three of the eleven or so plants in each plat, those in the middle of the plats being selected in order to avoid the complication of drift materials from adjacent plats. A record was made also of the extent of defoliation, which occurred to marked degree in the check plats and those receiving certain of the treatments. As an index of defoliation, leaf-scars were counted, and it was assumed that black-spot was the cause of the premature fall of the leaves. In addition, an attempt is being made to use the number of leaves remaining on the plants in the autumn as an index of growth as well as the efficacy of the materials tested.

As in most experimental work, no small part of the problem

is that of developing a method of taking records that will be accurate and adequate, and a system of giving expression to the data that will be simple and clearly show the important points. The data are being subjected to statistical methods and in due time will be presented in a form as usable as possible.

Since our results to date are for only a single season, it would be obviously premature and unfair to publish the data at this time. This is true in spite of the fact that the results were outstanding and clean cut, and, further, that they were in keeping with the conclusions reached from previous tests. Therefore, the writers ask the indulgence of the members of the Society for another year, when it is expected that we shall have conducted our tests under the environmental conditions of another season. It is expected that in succeeding Annuals the complete data can be given in progress reports.

Our plats this year were a disappointment in so far as experiments on the canker diseases are concerned, because these diseases were absent. This may have been due to the unusually dry season. However, striking results were obtained on the control of black-spot, and laboratory and certain fundamental studies initiated on canker. Those who visited the plats were impressed by the differences in effectiveness exhibited by the several materials tested, the better ones protecting the plants from black-spot throughout the season and the poorer ones being little better than no treatment at all. Plants which suffered defoliation failed to make as good growth as those which were protected from black-spot, did not properly mature their wood, and at least in instances where a second set of leaves were started as the result of defoliation, would be fit specimens for winter-killing if left out during the winter.

It is, perhaps, sufficient at this time to report to the members of the Society who have so generously contributed to the support of the fellowship, a few generalizations that appear to be warranted and which will serve somewhat as a guide for spraying or dusting procedure next season. *Fungicides are available which will control black-spot.* If these materials are used and failure results, the fault lies not in the material but in the method. If reference is made again to the article on black-spot in the 1929 Annual (pages 31–35), the source of the failure

may become evident. Our experimental results in 1929 confirm the facts set forth in that article, and the rose-grower can do no better than follow the suggestions in every detail.

A point of interest in the tests this season was the evident injurious effect of copper fungicides on the foliage. All of the sprays used, including liquid lime-sulphur 1 to 50, gave some slight injury to the tender new growth early in the season, but the copper fungicides seemed to exert a slightly injurious action throughout the summer. Evidently the rose was not entirely happy under the protective coating of copper fungicides, during the past season. More will be said on this point later when additional data are available.

Black-spot was again adequately controlled by dusting with finely divided sulphur. Both the method and the material were satisfactory. No evidences of injury to the blossoms were observed, although insufficient data were obtained either to prove or disprove this question as raised by some growers.

It is suggested that the amateur, in arranging for a schedule of treatments for disease-control, use lime-sulphur spray at the rate of 1 gallon of the concentrate to 15 gallons of water, as a dormant spray in the spring, and again in the autumn. Dry lime-sulphur is satisfactory if used in amounts to give equivalent sulphur content. Lime-sulphur is suggested largely on the basis of its being a standard material long in use, and one that has been tested by the senior author in the past. It is not to be inferred that the tests of the past season indicated the inefficiency of other materials tested. During the growing season, sulphur dust, properly applied, will hold black-spot and mildew in check and cause less discoloration than any of the sprays of equal efficiency. If your present practices are satisfactory, it is suggested that they be continued until such time as the experimental work in progress yields results that will enable us to suggest improved methods and materials.

A few words on plans for the coming season may not be out of place. Materials tested this season will again be used, with the substitution of new ones for one or two which were notably ineffective. The plan of the experiments will be similar to last year, with improvements as experience indicates. In addition we shall have tests on plants of which the understocks

were sprayed during the past season, previous to and following budding. In these latter tests information is sought on the value of spraying understocks in canker-control, looking to the development of methods which will assure the amateur getting disease-free plants from the nursery.

In order that our conditions may be more nearly comparable with those of the amateur, the Conard-Pyle Company has kindly turned over a sufficient number of two-year-old plants, and land for their culture, to enable us to conduct tests on them next season. The plants were set out this fall. They will be similar to plants received by the amateur from the nurseryman, and their use in the tests will be valuable in indicating the results to be expected by the average rose-grower from the materials being studied.

In conclusion, the writers wish to acknowledge with thanks the generous coöperation extended to them by the Conard-Pyle Co., in whose plantings the experiments were conducted. They are also indebted to the American Lime and Stone Co., the Rose Manufacturing Co., the B. G. Pratt Co., and the Niagara Sprayer and Chemical Co., for certain spray and dust materials that were donated for the tests.

# Dusting Roses

By L. J. MEYER, Fellow, American Rose Society Fellowship in Plant Pathology

THERE are several reasons why dusting for the control of diseases and insect pests commends itself to the rose-grower: The method is simple and rapid; the substitution of air for water as the carrier of the chemicals eliminates much labor and dirt; dusters are less complicated and give less trouble than sprayers. However, these advantages are secondary to two factors of vital concern. These are (1) adequate control and (2) the elimination of discoloration of the foliage. With the discovery that sulphur dust is as effective as bordeaux mixture and lime-sulphur solution in the control of black-spot and mildew, and causes less discoloration, dusting became attractive to the rose-grower. The development of dusts colored green is a recent improvement.

Since dusting offers considerable advantage over spraying in control, sightliness, and convenience, it seems worth while to suggest the proper method of applying fungicides dry.

*Apparatus.* The simplest type of hand duster is a container with perforations through which the dust is shaken. Burlap and cheesecloth bags are sometimes used. The dust is placed in the bag and shaken over the plant, or beaten out with a stick. Sifters and bags are not recommended since both are poor substitutes for dusters of greater efficiency which can be had at relatively low cost. Neither sifter nor bag enables the operator to direct the flow of dust.

Proprietary dusters are reasonably satisfactory, although further improvements are needed. The bellows type is less used than the plunger type. In both, the dust contained in a hopper is fed into the air-stream, generated either by the bellows or the plunger, and blown out as a fine cloud. The action is discontinuous in the bellows type and the majority of the plunger types, but some of the latter, by being "double acting," give an almost continuous flow. These apparatus are satisfactory for the grower with a dozen or two plants.

Dusters of the crank type are desirable for plantings too large to be dusted conveniently with the smaller type. Several good machines are on the market. The dust is fed into the continuous air-stream by a mechanism positive in action which permits regulation to control the flow of material. These dusters are usually carried by a strap over the shoulder. One hand turns the crank and the other directs the discharge.

*Materials.* Only materials especially prepared for use as dusts are effective. They should be fine enough to pass through a 300-mesh sieve, and mixed with some "fluffer," such as talc, lime, etc., to make them flow well. Sulphur, lead arsenate, and nicotine impregnated into lime are available as dusts. Sulphur will effectively control black-spot and mildew; lead arsenate is a stomach poison for chewing insects; and nicotine will kill such sucking insects as aphids or lice. A mixture of 90 parts sulphur and 10 parts arsenate of lead is most commonly used on roses. Many growers systematically dust throughout the season with the 90–10 mixture, and keep a small quantity of nicotine dust on hand to apply when lice appear. Nicotine is

less effective when mixed with sulphur. It should be kept in air-tight containers and purchased in small quantities to insure its being fresh. The nicotine content of the dust should be at least 2 per cent.

*When to dust.* To control black-spot, mildew, and chewing insects, apply the dusts either early in the morning (before 7 o'clock) or late in the afternoon. At those times the air is quiet and the dust-cloud will envelop the plants for several minutes. Less dust will be needed and better coverage obtained. *Moisture on the leaves is not essential since the fine particles of the dusts sift down among the hairs on the leaves and are held there in ample quantity.* It is unnecessary to apply so much dust that it is particularly noticeable. Frequent light dustings are preferred to less frequent and heavy dosages.

*Dust BEFORE rain periods.* It is during the time the leaf is wet that the disease-spores germinate and infection takes place. Any material so soluble in water as to be washed off during rainy periods will not protect plants from black-spot. In addition to replenishing materials dissipated by rain, frequent applications are needed to protect new growth. Dust oftener when the plants are growing rapidly and when the leaves are frequently wet by dew; and try to get an application on the plants before each rain.

Nicotine dust for aphid control should be applied during the warmest period of the day, *i. e.* around noon, and is most efficient when the temperature is above 70° Fahr. Select a bright, warm day when the air is quiet.

*Operation of the duster.* In dusting, the discharge-pipe should be directed into the slight air-drift that usually prevails during the early morning and evening hours. The dust will thus be blown through and past the plant and slowly carried back and down, giving complete coverage and protection. By directing the discharge-pipe up under the leaves, the lower as well as the upper surfaces will receive a light coating. A little practice will enable the operator to determine the best adjustment of the control regulating the flow, the proper speed of the crank, and the distance to hold the discharge-pipe from the plant.

# Successful Treatment of Roses Attacked by the Japanese Beetle

By MRS. J. WILLIS MARTIN, Philadelphia, Pa.

EDITOR'S NOTE.—Rather heroic measures are here reported, but that they were successful is the great thing.

ABOUT July 1, Japanese beetles attacked my Hybrid Tea roses, eating not only the leaves but also the buds and full-blown roses. The beetle-traps were of no avail, and while, for a week or ten days, the beetles were picked off by the jarful every afternoon, it became evident it was not worth while to have the roses bloom only to be eaten up by their enemies.

On July 10 the ground around the bushes was cultivated and covered with humus about 2 inches deep. A small amount of lime was mixed with the humus. On July 12 the blind wood was cut out from the bushes and they were cut down to 1 foot, and some of the largest bushes to 18 inches. They were then thoroughly washed with water and sprayed with Pyrox. During the months of July and August the plants were fed regularly every week to ten days with cow- or sheep-manure. The new foliage was washed every week with water and, when dry, sprayed with Pyrox. During the very hot weather, when the thermometer rose to 94° Fahr., the beds were thoroughly soaked with a root-sprinkler which was put down into the ground about 18 inches.

September 1 the ground was cultivated, digging in the humus. Cultivation and feeding were kept up until the middle of September. The bushes made a strong growth and roses were kept disbudded until August 20.

During the first week of September, the roses began to bloom. They were small at first, having been set back by the very hot weather, but they have bloomed continuously, with long stems and rich, perfect foliage absolutely free from black-spot. About September 23 they were at their height. A few beetles returned in September, but were kept in control by the Pyrox, and up to the present date (October 5) the roses are blooming profusely, with long stems and perfect buds.

# Black-Spot and Brown-Canker Control

By PROF. RICHARD P. WHITE, Research Specialist,
State of New Jersey Agricultural Experiment Station

EDITOR'S NOTE.—Professor White reports progress in the rose-disease investigation which he outlined briefly on page 30 of last year's Annual. While his work is devoted to aiding the commercial nurseryman, it cannot fail to benefit amateurs also, both by example and producing disease-free plants for gardens.

DURING 1929, spraying experiments on several varieties of roses were conducted, primarily for the control of black-spot (*Diplocarpon rosæ* Wolf) and brown-canker (*Diaporthe umbrina* Jenk.). The experiments were conducted in commercial nurseries, and the results can be applied to commercial production only. Especially is this true since many of the spray materials discolored the foliage to a degree which could not be tolerated in rose-gardens. Discoloration of the foliage should not be considered seriously objectionable by the commercial producer, since his main concern should be the production of a healthy, well-matured, No. 1. bush.

The purpose of this article is to present the results of those experiments as related to black-spot and brown-canker control. It is quite possible that some of the materials tested, if used more frequently, as is possible in small home-gardens, might have given better results than those reported here.

The experiments were conducted on maiden plants, budded in 1928. On May 15, the first application of fungicides was made, the final application on September 24. During the season, fourteen applications were made with a knapsack sprayer, which permitted more thorough distribution of the materials over the leaves and canes than can be effected with either power or traction sprayers. However, by proper adjustment of the three nozzles per row of the power or traction outfit, and the use of at least 200 pounds' pressure, satisfactory and commercially practical results should certainly be obtained.

Early in the season it was evident that some of the materials being tested were far superior to others in black-spot control.

At the close of the season, wide variations in brown-canker control were also recorded.

*Materials.*

As spray materials, the following were selected:

Home-made bordeaux mixture (4–5–50).
Pyrox, a commercially prepared bordeaux paste, used at the rate of 1 pound to 3 gallons of water.
Fungtrogen, a commercially prepared ammoniacal copper carbonate and nickel carbonate spray used at the rate of 1 gallon to 60 gallons of water, as recommended by the manufacturers.
Concentrated lime-sulphur diluted 1 to 50, plus iron sulfate at the rate of 3 pounds to 250 gallons of spray material.
Colloidal copper hydroxide at the rate of 1 to 4000 during the early part of the season, but which was gradually increased in strength to 1 to 1000.
Ialine, a colloidal sulphur used at the rate of 4 pounds wet basis, to 50 gallons of water.
Thylox flotation sulphur, 4 pounds to 50 gallons on a wet basis.
Ferrox flotation sulphur, 4 pounds to 50 gallons on a wet basis.
Gray flotation sulphur, 4 pounds to 50 gallons on a wet basis.

To all these materials, except Pyrox and Fungtrogen which carry their own sticker and spreader, flour was added at the rate of 8 pounds to 50 gallons of spray. During the course of the experiments, "Kayso" and laundry soap were also used. Due to the better spread of the fungicides on the younger foliage when soap was used, it is probably to be preferred over the other two materials. Further work is to be conducted on this phase of the spraying program.

Some explanation as to the absence of all sulphur dusts from these experiments should be given. During the seasons of 1927 and 1928 it was observed that on a commercial basis, sulphur dusts failed to control brown-canker infections, and in some cases failed to give adequate protection against black-spot. Consequently no sulphur dusts were included in this work.

*Results on Black-Spot Control.*

When these experiments were started (May 15), many of the dormant buds had not yet commenced growth, and the longest canes were not over 6 inches in height. No black-spot was present on the leaves at this time.

On July 20, after eight sprayings, the check plants of the Los Angeles variety were three-quarters defoliated with black-spot. The percentage defoliation and the percentage of the remaining foliage with black-spot was also determined. There was heavy infection on the canes in some of the plots, and the severity of this infection was also determined for the

so numerous. The data relative to the percentage of canes free from brown-canker infection appear below.

Late in the season, a heavy, purplish red spotting appeared on some varieties in these tests, which could not be attributed to either of the diseases mentioned. Isolations from such spots were usually negative, and they appeared only on bushes sprayed with the copper sprays. It was especially severe on Eldorado, Miss Lolita Armour, and Los Angeles, and was observed on many other varieties earlier in the season, which also had received several applications of copper sprays. Whether this cane-injury is an expression of copper poisoning is not known, but it is significant that it appeared only on canes sprayed frequently with copper fungicides.

These experiments also indicated that lime-sulphur and bordeaux had a stunting effect, for growth was not as free on these blocks as on others, especially those sprayed with Ialine, Ferrox, and Thylox.

No recommendations are made on the basis of these experiments. Due to the high degree of protection offered by some of the materials listed on page 84, against these two troublesome diseases, it was thought advisable to present this information now to give the commercial grower of roses some indication of the relative merits of the sprays used, which should assist in planning this season's spray program.

Control of Black-Spot and Brown-Canker

| Materials* | Black-Spot | | | | | Brown-Canker | |
|---|---|---|---|---|---|---|---|
| | Los Angeles | | | Mme. Edouard Herriot | | Percentage Clean Canes 10-14-29 | |
| | Per cent defoliation | Per cent foliage with black-spot | Cane infections | Per cent defoliation | Per cent foliage with black-spot | Los Angeles | Mme. Edouard Herriot |
| Ialine | 1.1 | 0.6 | 1.0 | 10.1 | 4.0 | 99.6 | 95.0 |
| Lime-Sulphur | 2.0 | 1.2 | 1.4 | 31.7 | 34.1 | 98.1 | 97.7 |
| Ferrox-Sulphur | 4.5 | 2.1 | 3.9 | 10.7 | 11.8 | 96.9 | 93.6 |
| Gray-Sulphur | 8.6 | 3.6 | 3.4 | 17.6 | 37.2 | 95.9 | 95.6 |
| Thylox-Sulphur | 14.4 | 6.5 | 7.2 | 22.4 | 23.4 | 93.3 | 91.5 |
| Bordeaux 4-5-50 | 21.5 | 17.6 | 14.9 | 50.9 | 24.0 | 91.7 | 73.4 |
| Pyrox | 36.9 | 30.0 | 9.5 | | | 86.9 | |
| Fungtrogen | 50.5 | 53.2 | 14.6 | | | 77.8 | |
| Colloidal Copper Hydroxide | 72.2 | 46.2 | 19.5 | 66.7 | 90.8 | 66.9 | 68.1 |
| Check | 75.0 | 83.4 | 25.5 | 63.3 | 92.2 | 2.8 | 63.4 |

*See text

# An Infectious Chlorosis of Rose

By PROF. RICHARD P. WHITE, Research Specialist,
State of New Jersey Agricultural Experiment Station

EDITOR'S NOTE.—A bothersome rose disease not heretofore described, and of much menace to indoor roses, is here dealt with by the capable research specialist who first investigated it. Very interesting and important is its relation to the understock in use. As noted, Odorata stock seems immune to it. In the last paragraph a means of control is given. Chlorosis, by the way, is a bleaching or whitening of the foliage, with consequent damage.

IN THE fall of 1927, attention was called to an abnormal condition of roses growing under glass in New Jersey. It was provisionally classed as mosaic-like in character, and in many of the trade journals, press reports, etc., it is referred to as "rose mosaic." Due to the localization of the chlorotic areas and the infectious nature of the malady, the disease under discussion is more properly referred to for the time being as "infectious chlorosis."

This disease has been observed during the past two years in New Jersey, New York, Pennsylvania, and Massachusetts. It has been determined through correspondence and examination of specimens that it also exists in Oregon, California, Illinois, Indiana, Iowa, Michigan, Colorado, Wisconsin, and Quebec, and there is reason to assume that the disease is also present in British Columbia. The percentage of infection has varied from traces to as high as 90 per cent.

*Symptoms.*

The symptoms of this trouble are striking. The plants are dwarfed, the degree of dwarfing depending upon the variety, the seriousness of infection, and environmental conditions. This dwarfed character is expressed in all parts of the plant: leaves and leaflets, length of flower-stem, size of bloom, vigor of canes, and root-development are all directly affected. Buds are usually malformed and imperfect, and sometimes markedly bleached.

On the leaflets distinct chlorotic areas are evident, especially along the midrib. These chlorotic areas are most abundant in this region, but may also occur in the lamina of the leaflet and frequently at the margin. The general appearance of these

chlorotic areas is one of complete chlorosis, but upon slight magnification it was clearly evident that the chlorosis was first confined to a pronounced clearing of the veins and veinlets. Slight necrotic areas may occur in the chlorotic regions. Chlorosis is often limited to one side of a leaflet, causing the leaf to bend due to unequal growth of the two halves. Isolated chlorotic areas and areas along the midrib cause the leaflet to pucker or ruffle. It has been frequently noted that the pattern of chlorotic areas on the two halves of a leaflet is symmetrical, and frequently the same location of this symmetrical pattern has been found on all the leaflets of a given leaf. The midrib of leaves is often distorted and bent, cases having been observed where a midrib has twisted 180°, so that the tip leaflet will be upside down in relation to the lower leaflets.

Associated with this disease in many, but not in all cases where domestic Manetti understock has been used, is a root-discoloration. From the discolored areas in these roots, *Coniothyrium fuckelii Fusarium* sp., *Pestalozzia* spp., and a *Verticillium*-like organism have been isolated. Inoculations with these organisms failed in Manetti rootstock.

*Varieties and Species Infected.*

This disease has been found occuring naturally only on Hybrid Tea varieties and *Rosa manetti*. It has been reported, however, on Ragged Robin and Pernetiana varieties by Nelson* and has been experimentally transferred to *Rosa multiflora*.† The following varieties and species have been observed with typical symptoms:

| | |
|---|---|
| Mme. Butterfly | Columbia |
| Premier | La France |
| Premier Supreme | Ophelia |
| Scott's Red Premier | Sensation |
| Templar | Duchess of Wellington |
| Briarcliff | Etoile de France |
| General MacArthur | Hoosier Beauty |
| Hadley | J. B. Clark |
| Jonkheer J. L. Mock | Shot Silk |
| K. of K. | Gruss an Teplitz |
| Lady Alice Stanley | Double White Killarney |

*Nelson, R. Infectious Chlorosis of the Rose. Abs. in Phytopathology, Vol. 20, Jan. 1930.

†White, R. P. An Infectious Chlorosis of Rose. Abs. in Phytopathology, Vol. 20, 1930

PLATE XI. Infectious chlorosis of roses. Healthy and diseased plants of MME. BUTTERFLY. Diseased leaf above

See page 87

PLATE XII. Black-spot control compared:

1. Check
2. Colloidal copper hydroxide
3. Fungtrogen
4. Pyrox
5. Bordeaux
6. Gray Sulphur
7. Thylox
8. Ferrox
9. Lime-sulphur 1–50 + Iron Sulphate 1–85
10. Ialine

See page 83

| | |
|---|---|
| Rose Marie | Gloire des Rosomanes |
| Rapture | Talisman |
| Rose Hill | *Rosa manetti* |

*Rosa multiflora*

It has been observed on very young stock of Talisman, but those plants failed to show symptoms later in the season. This reaction was again reported on older plants, indicating that this variety, with its Pernetiana blood, is more or less resistant to the disease.

In all cases that have been traced accurately, this disease is associated with the use of *domestic Manetti*. One illuminating case will illustrate the many that have been observed. A large quantity of Scott's Red Premier was budded on domestic Manetti, and at the same time a smaller number on Odorata stock of local and eastern production. Thorough examination of the smaller block during the winter forcing season failed to discover a single case of infectious chlorosis. In the same bed the plants on domestic Manetti showed an average of 18 per cent infected plants.

On the other hand, there are many cases of this disease where the understock has not been accurately traced, because of the difficulty of following a certain shipment through dealers, brokers, and importers. There is a possibility that foreign Manetti also carries this disease. Two cases are recorded in which the evidence indicates this to be true.

*Experimental Transfer of Chlorosis.*

This disease has been experimentally transferred from diseased to healthy plants by using buds from diseased plants. On January 26, 1928, five buds from diseased plants of Mme. Butterfly, Premier, and Templar varieties were inserted into healthy Briarcliff plants which were growing in a house where this disease was absent and where the only insect present in appreciable numbers was the red spider. As checks, five buds were taken from healthy plants of the same varieties and placed in plants of healthy Briarcliff in the same bed.

On March 1, all the buds (except two which failed to unite) had made from 4 to 6 inches growth. Of the thirteen diseased buds which united, every one showed typical symptoms on the leaflets, identical with those on the parent plant from which it

was taken. The fifteen healthy buds produced fifteen normal shoots, the leaflets of which were normal in all respects.

On May 8, four of the five Briarcliff plants into which a single diseased Templar bud had been inserted, three of the plants with diseased Premier buds, and one of the plants with diseased Mme. Butterfly buds, were showing symptoms of this disease. In some cases these symptoms were evident on new growth of Briarcliff canes far removed from the point where the bud was inserted. Out of thirteen successful diseased bud insertions, successful transfer of the disease to healthy Briarcliff plants was obtained in eight cases. The plants into which healthy buds had been inserted remained free from all symptoms of chlorosis.

By this method the disease has been transferred to *Rosa multiflora*, but we failed to transfer it to *R. odorata*, and to Pernetiana or Polyantha types. Experiments are under way at present with all rose species used as understock, to determine their resistance or susceptibility to this disease.

*Other Attempts at Transfer.*

Insect transfer was attempted during the winter of 1928–29 in the greenhouse. Red spider, aphis, and leaf-hoppers were colonized on diseased Mme. Butterfly plants for various periods of time. They were then transferred to healthy Mme. Butterfly plants growing in insect-proof cages and allowed to feed and multiply indefinitely. No cases of insect transfer of the disease have been obtained to date.

Attempts to inoculate healthy Mme. Butterfly plants with juice from diseased plants by leaf-mutilation also failed.

Diseased plants, when grown in the field and allowed to become dormant, and then transferred to the greenhouse in insect-proof cages, reproduced the symptoms without any insect association.

The rate of spread from plant to plant is extremely slow, if it actually takes place. For this reason, the disease should be easily controlled by thorough roguing of the domestic Manetti fields and careful selection of bud-wood.

# Dr. Hurst's Rose Classification

By EILEEN WHITEHEAD ERLANSON, B.Sc.Hon. (London), Ph.D.
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EDITOR'S NOTE.—In the 1927 Annual, Dr. Kathleen B. Blackburn, a distinguished English cytologist, presented clearly the relation of the chromosomes in rose-breeding. At the London International Rose Conference, in July, 1928, Dr. C. C. Hurst, an eminent English scientist working especially with roses, delivered an important paper on "Genetics." It is this paper that Dr. Erlanson here discusses.

MUCH interest has been aroused among rose-breeders by the attempt of Dr. C. C. Hurst, of Cambridge, England, to classify the roses. He believes that he has demonstrated experimentally that "there are five fundamental species in the genus Rosa of Linnæus, and that all the other species of this genus consist of various combinations of the chromosomes and characters of these five fundamental species." These five he designates as A, B, C, D, and E, and under each he groups as subspecies a number of related roses which most botanists treat as species. Each fundamental species can be distinguished by a large number of characteristics in the mature plant, some of which are constant, whereas others are variable and may or may not occur in all the members of the same group. Some of them show Mendelian behavior. Any two individuals belonging to one of these five fundamental groups will give fertile offspring if interbred; any two individuals belonging to different fundamental groups will give sterile offspring which combine the characteristics of the two fundamental species to which their parents belonged.

I have been asked to give a résumé of this extremely inviting theory which, for its author, removes the question "What is a species in Rosa?" from the subjective ground of "the personal opinion of doctors who differ" to a sure basis of experimental demonstration. Before we allow our ideas to be revolutionized it is essential that the fundamental genetical and cytological facts that led Dr. Hurst to formulate the theory be understood. If I can succeed in explaining them, the reader may judge for himself the strength and weakness of the theory.

Hurst's rose classification, based upon his theory of differential chromosome septets, is founded on the results obtained

from his extensive studies of the microscopic reproductive and body cells, which, in the rose as in other organisms, contain at the time of cell-division certain perfectly definite bodies known as *chromosomes*. Individuals belonging to the same species usually have the same number of chromosomes in every cell of their body. This is known as the *Chromosome Number* of the species. The chromosomes are ordinarily half as numerous in the reproductive cells (egg, contained within the ovule, and sperm, produced by the pollen) as they are in the body cells. They may be counted quite easily in well-made preparations, and for the "fundamental species" of Hurst are seven in number for the reproductive cells and fourteen for body cells. The group of seven is called a septet, and one double septet, or fourteen chromosomes, is the lowest chromosome number known in roses. Roses are very interesting because they exhibit many different chromosome numbers in different species, ordinarily multiples of seven.

Each body cell of a fertile rose with fourteen chromosomes contains two identical septets; that is, each chromosome is present in duplicate, one of the pair (called a homologous pair) having come from the female reproductive cell (egg) and the other from the male (sperm). There is nothing speculative about the chromosomes. It requires only careful technique in preparing the material for microscopic examination and patience in looking for cells in the right aspect for counting to make out not only their number, but to see just what they do during cell-division.

It is quite essential to remember that, as a general rule, every organism originates in the fusion of two germ-cells, and that each parent contributes one-half of its chromosomes to the new individual. Now the most important fact concerning the chromosomes is that they carry the hereditary factors which determine what any individual shall be. Furthermore, all the factors needed to produce an individual are contained both in the chromosomes of the egg and in those of the sperm. In Hurst's classification he uses capital letters, A, B, C, D, and E, each of which represents a septet of chromosomes bearing a definite set of hereditary characters.

A rose embryo then receives at least two determiners con-

cerned with each characteristic it is to show as a mature plant. It may receive a factor causing red petals from the female parent and another for red from the male, or the factor governing color received from the male may be one which alone would cause the petals to be white. The color of the petals in the offspring will depend upon the balance between the factors received from each parent, and so for every characteristic. If both the factors received are for red petals, the plant is homozygous for red; if one is for red and the other for white, it is heterozygous for petal color.

There are, of course, hundreds of factors in the chromosomes of any organism. These factors are arranged in a definite order along each chromosome, like beads on a string. It is well known from breeding studies of many organisms that occasionally some of the factors in a chromosome become changed, or, as the geneticists say, they "mutate." Then the offspring of a homozygous stock may differ from the parents because there has been a permanent and transmittable alteration in their hereditary material. Mutations have long been known to practical breeders, who call them "sports."

In order that an organism shall contribute only half of its chromosomes to its offspring at sexual fusion, there occurs a special type of cell-division before the formation of the reproductive cells. This is known as the *reduction division*. When it takes place, the two sets of homologous chromosomes present in the cell come together in pairs, giving seven pairs in a rose with fourteen chromosomes. Each of the maternal chromosomes pairs with its mate among the paternal chromosomes. At reduction division those chromosomes pair which contain the same factors. This process is described as the *pairing of homologous chromosomes*. After pairing, the members of each pair separate, and each group of seven chromosomes forms a daughter cell. Since the members of the pairs separate at random, the maternal and paternal sets of chromosomes are broken up according to the laws of chance. The daughter cells resulting from reduction division receive one of each of the seven kinds of chromosomes present, but it may be either the one originally from the female parent or the one from the male. These daughter cells eventually give rise to the repro-

ductive cells (gametes), each containing seven chromosomes. By designating each individual chromosome by a small letter, this important process can be illustrated diagrammatically:

Egg parent chromosomes . . . . . lmnopqr } Chromosomes of each body cell.
Pollen parent chromosomes . . . . *lmnopqr* }
Pairing at reduction division *l* m *n o* p *q* r
l *m* n o *p* q r
Chromosomes of reproductive cells . . . . . *lmnopqr* lmnopqr

There are some plants in which each type of chromosome is represented four times in each body cell. Then at reduction division all the homologous chromosomes come together and groups of four appear instead of pairs. In a rose this would result in seven groups of four thus:

ll mm nn oo pp qq rr
ll mm nn oo pp qq rr

Therefore, by studying the behavior of the chromosomes at reduction division under a powerful microscope, we can discover how many times each chromosome is present in each cell of a given individual. If the parents of a hybrid are sufficiently different from each other, there will be no homologous chromosomes in the cells of the offspring and no pairing at reduction division. Such a hybrid will be unable to produce germ cells and will be sterile. This explains why sterile hybrids should be produced if members from any two of Hurst's five fundamental groups were crossed, for the parents would have no homologous chromosomes in common.

Sometimes in a sterile hybrid the number of chromosomes is in some manner doubled, and thus the hybrid becomes fertile. For example, if a diploid rose has received seven chromosomes, lmnopqr, from one parent and seven non-homologous others, *stuvwxy*, from the other; and every chromosome becomes reduplicated before or at reduction division, they will then be able to pair with homologous mates in this way:

lmnopqrstuvwxy
lmnopqrstuvwxy

The offspring obtained by selfing this plant will be fertile individuals with 28 instead of 14 chromosomes in every body cell, yet each chromosome has only one homolog or mate. Under Hurst's classification such plants are represented as con-

taining two sets of seven chromosomes from each of two of the "fundamental diploid species"—*i.e.* AABB or CCDD, etc.

The cytological types found in Rosa are named with reference to the number of times the fundamental number seven is present in the chromosome number of each species or individual. Plants with 14 chromosomes are called *diploids*, those with 21 *triploids*, with 28 *tetraploids*, with 35 *pentaploids* and with 56 *octoploids*. All these types, with the exception of pentaploids, are represented among North American wild roses.

If a tetraploid of the constitution AABB be crossed with a diploid of the constitution AA, the resulting offspring will receive fourteen chromosomes from one parent and only seven from the other, and will therefore be a triploid. At reduction division in the triploid hybrid seven chromosomes only will have homologous mates, thus:

| | | |
|---|---|---|
| Chromosomes from parents . . . . | lmnopqrstuvwxy | lmnopqr |
| Pairing at reduction division . . . | lmnopqrstuvwxy<br>lmnopqr | Chromosomes in body cells of offspring |

The presence of seven chromosomes without mates at reduction division will cause an upset in this delicately balanced process. The paired chromosomes separate from each other, seven passing to each daughter cell. The unpaired chromosomes usually become distributed at random in the protoplasm, and the daughter cells produced by reduction division may receive any proportion of them, which will give a possible variation of from 7 to 14 in the chromosomes in the germ cells of a triploid hybrid. Some of the unpaired chromosomes may fail to reach either of the regular daughter cells at reduction division; these will form little extra cells containing from one to four or five chromosomes. Such cells give rise to the dwarf, shrivelled pollen grains which are sterile and are characteristic of the pollen of hybrid plants. Among about 150 American wild roses I have found only four triploid plants with 21 chromosomes, and seven paired and seven unpaired chromosomes at reduction division. They all show evidence of being natural hybrids between wild tetraploid and wild diploid species, and are highly sterile as to pollen and seed, although one such hybrid bears plump hips every autumn. It is quite possible for plump hips to contain few or no good seeds.

Dr. Blackburn reported in the 1927 Rose Annual the discovery of a bush of the Hybrid *Rosa Wilsoni* in England. This plant had received fourteen chromosomes from one parent and seven from the other, and should therefore have been a triploid. It was found to be hexaploid with 42 as its chromosome number. At reduction division there were 21 pairs and the plant was fully fertile. This is one of the instances in which the chromosomes in a sterile hybrid had doubled in some way. Since after doubling there were only two of each kind of chromosome present, it is evident that all three sets contributed by the parents were different. They are designated as A, B, and C sets by Hurst. The evolution of this fertile hexaploid can be illustrated diagramatically:

Tetraploid species . . . . . AABB CC . . . . Diploid species
Chromosomes in a cross . . . . AB×C
↓
Sterile triploid hybrid ABC (no homologous chromosomes)
|
Chromosome duplication
↓
Fertile hexaploid AABBCC (21 pairs at reduction division)

Unfortunately, we do not yet know how to bring about the duplication of chromosomes in a sterile hybrid. The value of such knowledge to the plant-breeder would be inestimable.

The roses of the section Caninæ, to which belong the Sweet Briar and the Dog rose, are very remarkable because although the behavior of their chromosomes at reduction division demonstrates that they are unbalanced hybrids, yet they are able to maintain this unbalanced condition from generation to generation. The chromosome numbers found in this section of the genus are 28, 35, and 42, but at reduction division there are seen to be only seven pairs. The other chromosomes have no mates. When eggs are formed, each one receives half of the paired chromosomes (7), plus all the unpaired chromosomes. The fertile pollen grains, however, are those which receive none of the unpaired chromosomes at reduction division and therefore contain only 7 chromosomes. It is obvious that a plant of this section of the genus (the Caninæ) will have two very different effects in hybridization, depending upon whether it is used as a female or as a male parent.

There are some Caninæ, as for example *R. Jundzillii*, with 42 chromosomes in their body cells. At reduction division there are seven pairs and 28 unpaired chromosomes. The egg contains 35 chromosomes (28+7) and the sperm 7. The behavior of the chromosomes in this rose led to the conclusion that it had originated from a crossing between two roses with different chromosome numbers, one of which contributed 7 and the other 35 chromosomes. The plant with 35 unlike chromosomes in its reproductive cells should be a decaploid with 10×7 chromosomes in its body cells. In Dr. Hurst's scheme this hypothetical decaploid rose is designated as:

AABBCCDDEE

and *R. Jundzillii* as ABCCDE. According to Dr. Hurst, this rose exhibits in its body a combination of the characters of the five fundamental species, in the ratio of 1A: 1B: 2C: 1D: 1E.

Although there are octoploid roses now living in the subarctic of northwestern Europe and Alaska, no decaploid rose has yet been found. The decaploid roses are believed to have become extinct during or after the last Ice Age. (The idea of the hypothetical decaploid rose was first proposed by the Swedish botanist, Täckholm.)

The most revolutionary part of Dr. Hurst's theory is that he believes all the wild rose species now living, and showing a balanced number of chromosomes, to have originated from a decaploid species with the chromosome constitution AABBCCDDEE, by loss of sets of seven chromosomes, or as he says "by successive losses of whole septets of chromosomes." Such a process is unknown in other plants, and cytological evidences of its occurrence in Rosa have not been seen either by Blackburn and Harrison, or by the writer.

There are two premises on which this theory is based: (A) That the mutations in the chromosomes of the different forms within one of the fundamental species are so limited that the chromosomes remain homologous in whatever part of the world the roses happen to be growing: (B) That the chromosomes in each different set always remain together, and the sets neither break up nor get mixed up.

With regard to the first premise there is no reason to sup-

pose that the process of evolution by mutation has ceased in Rosa, or that a new "fundamental diploid species" could not arise at the present time whose chromosomes would be non-homologous with any of Hurst's five fundamental sets. At a conference on polyploidy held at the John Innes Horticultural Institute last January, Dr. Hurst stated: "Another possibility is that those garden roses which were polyploid varieties [*i.e.* each chromosome represented four times, formula AAAA] have now become partially differentiated by mutations of their genes [factors] under intensive cultivation." That which takes place under cultivation occurs also in nature, though perhaps more slowly. Wild plants are not usually homozygous as many horticulturists believe. Wild *R. blanda* and *R. foliolosa* sometimes have over 50 per cent sterile pollen.

As an illustration we may consider a culture of hybrid plants which have been grown at the Botanical Garden of the University of Michigan. The parents were two wild bushes, both closely related to *R. blanda*, both with fourteen chromosomes in the body cells and both with about 5 per cent of the pollen sterile. Among nineteen offspring, fourteen had pollen containing from 5 to 25 per cent of sterile grains; five showed pollen sterility varying from 26 to 46 per cent. Seed-sterility is almost always higher than pollen-sterility in the same individual. Undoubtedly both the parent plants belong to the same one of Hurst's fundamental diploid species. The only conclusion is that many changes had taken place among the chromosomes of the two related forms so that they were no longer completely compatible when crossed.

With reference to the second premise, Dr. Hurst also said last January that "in cases of intensive cultivation the sets of chromosomes themselves might be formed of chromosomes from two or more different sets which had become broken up." A sterile hybrid (*R. rugosa* × *R. foliolosa*) with fourteen chromosomes, grown at Ann Arbor, showed from two to five pairs of chromosomes at reduction division, revealing that some of the chromosomes are at least partially homologous while others are not. Since *R. rugosa* and *R. foliolosa* belong to "different fundamental species" of Hurst, there should have been no pairing. I have also found plants in a single

culture of wild diploid roses with 14, 15, 16, and 17 chromosomes in their body cells, which show that the sets of seven do occasionally break up. A few individuals were reported in 1922 by Dr. Täckholm, the functional gametes of whose parents evidently contained more than 7 and less than 14 chromosomes. If the sets of chromosomes can break up, part of one may be replaced by part of another and there will no longer be only the sets A, B, C, D, and E, but some entirely new ones. Since Dr. Hurst himself concedes that the sets can be broken up, it seems unreasonable to suppose that the five sets of chromosomes and characters present in the ancient decaploid rose still exist, like the parts of Osiris, scattered about the world, each one fundamentally unchanged.

At the end of this article is a list of some of the diploid roses in each of Hurst's "five fundamental species," as well as the formulæ for some of the species with higher multiples of seven chromosomes (polyploids) which combine in themselves the characteristics of from one to five of the diploid groups. In making this classification Hurst has had to leave some aberrant roses out of the genus, as for example: *Rosa bracteata*, *R. microphylla* (*R. Roxburghi*), *R. persica*, *R. minutifolia*. Likewise he has placed varieties which are hardly separable within the species as members of different groups, and therefore supposedly differing in a whole septet, *e.g. R. spinosissima* L. and *R. pimpinellifolia* L.; *R. humilis grandiflora* Baker and *R. virginiana* (*lucida*); *R. Bourgeauiana* and *R. Sayi*. *R. palustris* in Michigan is a diploid; Hurst calls it a tetraploid. This list may indicate possibilities for future breeding practices, based as it is upon Dr. Hurst's many years as a plant-breeder and student of roses both cultivated and wild. Too great faith should not be pinned to the theory as an unerring solution of the question "What is a species?" in the genus Rosa.

The wild rose collection at the Botanical Garden of the University of Michigan is doubtless one of the most extensive of its kind in the world. It is being used not only to get more light on the classification and breeding behavior of the species which will grow at Ann Arbor, but will also serve to test with different material the ideas put forth from time to time by investigators at other places. Science progresses with confi-

dence only when each step is adequately checked and confirmed before another is taken. The shortest time needed to grow a generation of wild roses, providing the seeds germinate promptly, is three or four years. Therefore, even if this method of classification based upon fertility and chromosome behavior in hybrids prove reliable, it would be at best a rather laborious process for dealing with unknown and new forms.

*An Outline of Hurst's Classification of the Genus Rosa*

*The five fundamental septet species.*

1. AA. *R. sempervirens* and subspecies including *arvensis, moschata, gigantea, abyssinica, longicuspis, gigantea, Helenæ, Rubus, Gentiliana, lævigata, Banksiæ, microcarpa, chinensis, cathayensis, multiflora, Wichuraiana, Luciæ, setigera.*
2. BB. *R. sericea* and subspecies including *cabulica, Ecæ, Webbiana, omeiensis, Willmottiæ, Hugonis, xanthina, gymnocarpa.*
3. CC. *R. rugosa* and its subspecies *coruscans, nipponensis, nitida.*
4. DD. *R. cinnamomea* and subspecies including *davurica, pisocarpa, Woodsi, foliolosa, blanda, Manetti.*
5. EE. *R. macrophylla* and subspecies including *corymbulosa, Giraldi, persetosa.*

*Regular tetraploid species.*

AABB. *R. Hunti* Hurst.
AACC. *R. centifolia* including subspecies *damascena, gallica, provincialis, pomponia.*
AADD. *R. palustris* with subspecies *humilis granuliflora* Baker.
AAEE. *R. Davidi* and its subspecies *setipoda, macrophylla crasse-aculeata.*
BBCC. *R. spinosissima* and subspecies *scotica, myriacantha, Riparti.*
BBDD. *R. pimpinellifolia* and its subspecies *lutea, altaica, ochroleuca.*
BBEE. *R. multibracteata* with subspecies *reducta* and *bella.*
CCDD. *R. virginiana* (*lucida*) and subspecies *baltica, arkansana.*
CCEE. No examples known.
DDEE. *R. pendulina* (*alpina*) with subspecies *pyrenaica, oxyodon, laxa* Retzius.

*Regular hexaploid species.*

AABBCC. *R. Wilsoni.*
AABBDD. *R. manca* Greene.
AABBEE. *R. Moyesi.*
AACCDD. No examples known.
AADDEE. *R. nutkana.*
AACCEE. No examples known.
BBCCDD. *R. Bourgeauiana.*
BBCCEE. No examples known.
BBDDEE. *R. Engelmanni.*
CCDDEE. *R. Sayi.*

*Regular octoploid species.*

AABBCCDD. *R. Tackholmi* Hurst.
BBCCDDEE. *R. acicularis.*

No other octoploid combinations have been found.

*Irregular tetraploid species.*

AACD. *R. omissa.*
DDCE. *R. mollis.*
CDEE. *R. pomifera.*
ADDE. *R. rubrifolia.*

*Pentaploid species.*

AABDE. *R. canina.*
AABCE. *R. micrantha.*
ABBCD. *R. rubiginosa.*

*Irregular hexaploid species.*

ABCCDE. *R. Jundzillii.*
ABBCDE. *R. inodora.*

# Growing Roses in Water

By PROF. W. F. GERICKE, Laboratory of Plant Nutrition, University of California

EDITOR'S NOTE.—Publication in *Popular Science Monthly* of an article on growing plants in water only, caused inquiry of the able investigator who has here responded completely and courteously.

Readers are expected to respect Prof. Gericke's preference not to be disturbed in his further investigations by letters of inquiry. He has promised to provide "much additional information," as it develops, for later issues of the Annual.

ABOUT three-fourths of a century ago, several German investigators succeeded, during the course of some years of experimentation, in bringing a few land plants to maturity in water, supplied with certain chemicals. Their experiments were the first in the field of water-culture investigations, and were designed for the study of the nutrition of plants as it might apply to their growth in soil. These provided, with those of others subsequently conducted in several laboratories, important contributions to the science of plant physiology.

The motive back of the first demonstration of the feasibility of growing certain land plants in water was to test sundry theories held by scientists concerning the nutrition of plants. Data on the chemical analyses of plants had given suggestions as to some of the elements that were required for growth. But a troublesome feature in the data was that no element in a plant was found to have a fixed value. For example, a given variety of wheat would contain a certain percentage of nitrogen, and another sample of this same variety, but grown in a different locality or season, might have a markedly different percentage. There was no answer to the question, "How much nitrogen is actually required to produce a unit weight of wheat grain?"

Thus confronted by the necessity of giving advice to the farmer as to the fertilizer needs of plants, the scientist, realizing the inadequacy of chemical analyses to give concise answers to such requests, set out to secure more information. The immediate problem of the variability of the composition of plants was to determine what elements were actually essential for growth. Apparently this could only be determined if it were possible to exclude from the growth-medium any element found in the plant, or that in any way might be considered to

have affected growth, and thus observe the effect of the absence of such element in the culture medium on its development.

In 1860, Knop, now called the father of water-culture experimentation, reported the first experiments on growing plants in a synthetic medium—water containing certain salts.

It is not possible in this paper to follow the developments in this field. The literature since 1860 contains numerous papers describing experiments conducted in scientific laboratories on the growth of a few plant species in nutrient solutions. These experiments, however, were practically all designed to gain knowledge of factors influencing plant-production in soil. A few of the important field-crop plants—wheat, barley, oats, maize, beans, and mustard—were used in these experiments. Apparently no data of investigations of this character using plants grown solely for the production of flowers are on record.

In the latter part of 1927, the writer began to use such plants for water-culture experimentation. The work with roses began in January, 1928. Eight plants each of Columbia, Cécile Brunner, Golden Ophelia, Los Angeles, Mme. Butterfly, Mme. Edouard Herriot, Ophelia, Radiance, and Souvenir de Claudius Pernet were set into one-gallon glass jars filled with nutrient solutions composed of chemically pure salts and distilled water. The plants were young nursery stock—a gift of the late George C. Roeding, of the California Nursery Co., Niles, Calif.—and were grafted on Manetti root. A truncate-shaped cork, one-half inch thick, fitted the opening of the jar, the same size as that of the ordinary Mason fruit-jar. The plants were inserted through a hole in the cork, and secured in place by cotton wadding. The transparent jars were covered with black paper or paint to exclude light, thus preventing growth of algæ.

Within a week from the time the dormant plants were set in the nutrient solutions, new roots appeared and the leaf-buds began to grow on some varieties. Within six weeks some varieties were in bloom, and within ten weeks all Hybrid Teas had produced or were bearing from three to eight well-formed buds or flowers. They were kept in a greenhouse until the latter part of May, when the containers were placed in the open field. Here they remained until the latter part of December. During the last four months that the plants were in the open the nutrient

solution was replaced by tap-water, the objective being to make the plants enter a resting period in order to have them in a dormant state by January 1, 1929, the beginning of the second year's growth in nutrient solutions. While no record was kept of the number of flowers produced during the first year, the plants were more or less in bloom for practically eight months.

At the beginning of the second year, the plants were returned to the glasshouse for the next season of bloom. But instead of growing each plant in a single container, they were set into large tanks. These were constructed of rough boards which served as a framework to hold bituminous paper (malthoid roofing-paper) with which the tanks were lined and which made them into water-tight reservoirs. These reservoirs were 10 feet long, 2 feet wide, and 8 inches deep, and each accommodated twenty-four plants. The top of the reservoir was covered with bituminous paper which rested on wire netting (2-inch mesh) that was tightly stretched over the wooden structure and nailed fast. The reservoir was filled with ordinary tap-water in which was placed a cartridge containing the essential elements. The plant-food diffused from the cartridge and thus produced a nutrient solution.*

Within ten days, new roots appeared and the leaf-buds began to grow. Flowers appeared on some varieties within six weeks. Within ten weeks, all varieties, with the exception of Souvenir de Claudius Pernet and Radiance, were in bloom, and some continued flowering more or less frequently for nearly eight months. Then the procedure was again altered to make the plants enter a resting period. The plants were kept under glass during 1929. Hot weather injured some of the varieties during the latter part of the year and caused a loss of ten plants. Their third year in nutrient solutions is now in progress.

It was evident from the results of the first year's experimentation that some varieties of roses were better adapted for growth in nutrient solutions than were others. Furthermore, it was anticipated that some varieties would thrive better in nutrient solutions exposed to outdoor conditions than under glass. Consequently, the experiments were enlarged in 1929,

*As explained later, the work is still in an experimental stage. Consequently, it is not now practicable to give specific directions for the preparation of the cartridges.

and twenty-four other varieties were tested under glass. Among these were three Polyanthas, namely, Baby Rambler, Superba, and Triomphe Orleanais. These grew exceptionally well and produced a great mass of bloom. (See illustration facing page 105.) Of the Hybrid Teas tested for the first time in 1929, Mrs. F. R. Pierson, Shot Silk, Roselandia, Souvenir de H. A. Verschuren, and Miss Lolita Armour gave very encouraging results. They appear to be well adapted for growth in water. These plants produced very excellent roots—a feature that is probably of as great importance for the successful growth of roses in water as it is in soil. Other varieties also grown on Manetti did not produce roots like these, and failed to equal them.

On May 1, 1929, fifty grafted plants—a gift of the Armstrong Nursery, Ontario, Calif.—were received. There were five varieties: Souvenir de Georges Pernet, The Queen Alexandra, Radiance, Souvenir de H. A. Verschuren, and Padre. Seven plants of each variety were planted in water in the open field and three in the soil. The water-grown Radiance, Queen Alexandra and Souvenir de H. A. Verschuren markedly excelled the soil-grown plants; some of the plants produced as many as fifty flowers, the soil-grown plants giving only about a third of this number. The reason the water-grown plants produced more flowers than the soil-grown ones lies in the fact that a well-developed root-system—that is, young feeding roots—was established much sooner in water than in soil.

The reservoirs situated in the open field were constructed by simply unrolling on the level ground rolls of bituminous roofing-paper (3 by 36 feet) and turning 6 inches of each end and of the sides upward. The sides formed in this way were held in place by boards of the same height. A roll of paper thus made a reservoir 35 feet long, 2 feet wide, and 6 inches deep. Wire netting was stretched over the top of the reservoir, and at intervals two strips of lath, nailed across the reservoir, secured the plants in place, as they were thus wedged between the two rigid supports. Strips of burlap were placed as required to cover the reservoir completely. A layer of soil or sand about 1 inch thick was put on the burlap, excluding light and preventing the rose-garden from breeding mosquitos.

The results obtained from the two years of investigation of

PLATE XIII. Rose-growing in water—A. See page 101.

*Upper left.* Columbia (left) and Los Angeles (right), first year in water. Jars covered to exclude light.
*Center left.* Golden Emblem, second year in water.
*Bottom left.* Souvenir de Claudius Pernet, second year.
*Upper right.* Mme. Butterfly. Note length of stems.
*Center right.* Los Angeles, second year.
*Bottom right.* Golden Ophelia, second year.

PLATE XIV. Rose-growing in water—B. See page 101.

*Top.* Baby Rambler after growing three months in tap-water supplied with nutrient cartridges.
*Center.* Roses in reservoirs of tap-water supplied with cartridges.
*Bottom.* A water rose-garden under glass.

growing roses in water has brought the writer to the conclusion that the method can be developed for use of those not trained as plant physiologists. But the growing of plants in water has limitations, as one will readily appreciate when it is realized that the first successful demonstration occurred eighty years ago. That the method has not been developed as a practical means of growing plants lies in the fact that the conditions essential for growth can be and are altered markedly faster in a water medium than in soil. Plants grow within a range of variation in quantities of each factor or complex of factors essential to their development. When a factor exceeds this range, growth ceases. For example, roses grow within a fairly wide range of temperature, but if the temperature exceeds this range and becomes either too cold or too hot, growth ceases. Analogous conditions pertain to the twelve elements that are required in a nutrient solution for roses. To cite but one example of the ease with which a nutrient solution is rendered unfit for growth of plants, as compared with the difficulty of similarly injuring the soil: one milligram, approximately $\frac{1}{128,000}$ ounce of copper sulphate, added to one quart of water, is toxic to many plants, whereas one-half ounce of this salt, added to an equal quantity of a loam soil, would have no harmful effect on the growth of many plants. The reason is that in the latter case the copper sulphate would react with the soil and soon become insoluble. In the former case it would remain in solution and poison the new roots as they form.

It is the markedly greater sensitivity of the water-medium, as compared with a soil, to the influence of the factors which may affect growth harmfully that makes it difficult for persons not trained in this field to know how to counteract untoward conditions as they arise. Some untoward conditions arise as an incident of growth, as plants grown in nutrient solutions change the character of the medium by the removal of elements required for growth and by the excretions of substances, chiefly carbon dioxide. Practically all formulæ for nutrient solutions on record employ chemically pure salts and distilled or rain-water. The nature and object of the work requires such materials. It was from the results of such experiments that the writer arrived at an estimation of the nature and property of the car-

tridge or fertilizing unit required to make the growing of roses in water feasible to those who cannot prepare and maintain the essential properties of nutrient solutions by chemicals.

It is probable that many persons would be able to grow some varieties of roses quite well for two to three months by use of nutrient solutions similar to those found suitable for growth of other plants, such as wheat or barley. But the methods described for scientific investigations are clearly not applicable to the needs of the layman for a new venture in plant-production. The public requires a product which may be defined as a complete fertilizing unit for growth of plants in water. Furthermore, the directions for its use must be simple and should consist essentially of a statement indicating the number of units to be added to a given quantity of water initially or at specified intervals. The writer's investigation in the nutrition of roses and other plants has for its objective the development of complete fertilizing units for use in water. Some progress has already been made, as has been shown in this paper. Reservoirs filled with ordinary water and supplied with a number of cartridges provided those elements essential for growth which plants would have derived from a fertile soil. However, more experimentation is needed to develop a practical method for growth of plants in water by those not familiar with nutrient solutions. This requires (*a*) proper fertilizing units, (*b*) the directions for the culture of various plants, and (*c*) specifications for the construction of suitable reservoirs to meet the requirements expected by the public in these products. Some rose-growers may desire to test the method in its present state of development. However, the best interests of the enterprise would be served if the writer is not asked to divert any of his time from experiments under his immediate care.

Because varieties respond differently in a growth-medium composed of water and a given cartridge, it is necessary to test varieties generally and determine their suitability. This feature of the experiment is to be expanded this year. Stock produced elsewhere than in local nurseries needs to be tested in order to determine whether regional influences affect the adaptability of any given variety for growth in water. The experiments showed that some varieties can withstand quite

severe treatment. Such sorts conceivably would have a wide range of adaptability. These varieties would most likely prove best suited to numerous conditions under which people would attempt to grow roses. But some people may attempt to grow roses in water under unfavorable light, temperature, and humidity conditions. No nutrient solution can substitute for these. Consequently failure would end their efforts.

But roses grown in water as here described—whether it be in gallon jars or in large reservoirs—have the properties of a portable garden. Plants in full bloom can be bodily transferred without undue injury from one receptacle to another. Some of the Polyanthas while in full bloom—bushes 3 feet tall and equally as broad—were kept in the living-room or on the dining-room table without any pronounced loss of beauty for nearly a month. When the bloom began to fade materially, the plants were put back into the original containers and exposed to proper light conditions for the development of another crop or season of bloom. Another advantage of growing roses in water appears to be that for immediate forcing of flowers on young stock taken from the nursery the water method has advantage over the soil method by virtue of a quicker development of a new root system. The difference due to this factor would probably not be so pronounced after a year or more when the transplanted rose has established a good root system in the soil. The fact that soil is not required to grow roses may make it possible for people to grow them who do not have suitable land or situation. Some people who do not appreciate the extent to which plant-growth is limited by other factors than that of nutrients in a fertile soil may attempt to grow roses in nutrient solutions and fail. This night be discouraging to amateurs and may delay the wider application of the method, The writer believes that ultimately the method can be developed and simplified so that others than plant physiologists can grow roses in water successfully. Whatever contribution he can make by means of experimentation will ultimately be made available to those who desire to grow roses. In the meantime, his time needs to be conserved for experimentation, and the necessity of answering communications would delay the accomplishment of this end.

# Own-Root Roses in Oregon

By Q. L. MATTHEWS, Portland, Ore.

EDITOR'S NOTE.—Even in the Oregon rose heaven, where own-root plants prosper, the aggravating and tantalizing Los Angeles seems difficult. Before it was named, a dozen years ago, plants in the Editor's garden gave vast pleasure, but they or their successors would not stay with us!

IT IS not my intention to renew the "budded" and "own-root" controversy. On this subject I would say, buy two-year-old field-grown budded roses; but if you live in Portland, or the Willamette Valley, and cannot afford to buy them, do not hesitate to purchase the local pot-grown hothouse roses. Some of my finest bushes are from these little hothouse plants that cost me 10 cents apiece. In our mild climate these little roses soon develop into sturdy, vigorous plants, and soon have canes large enough to be put into the cutting-bed. You then can grow young plants for yourself and your friends. You will soon discover that it is wise to have extra bushes on hand to replace those that die, or to give to admiring friends. One of my neighbors suggested that he thought I might be hurting the business of the nurserymen by giving away rose bushes and rose cuttings, but my experience has been just the opposite.

When my mother passed away, in 1911, I knew just three roses by name. These were Mme. Caroline Testout, Frau Karl Druschki, and Papa Gontier. After her death I began taking care of her roses. She had about thirty bushes and eight to ten varieties.

The little garden has grown. In my gardens now there are nearly a thousand rose bushes and more than 150 varieties. I spend more in one year for new roses than my mother spent in her whole lifetime. It pays big dividends to the growers to teach others to love flowers. When you give a friend a rose, give him a good one, not one that you are going to discard, but one that he will enjoy and be proud to show to his friends. He will then soon be buying bushes for himself.

Practically all Hybrid Tea roses do well on their own roots, and I have found all Hybrid Perpetual roses that I have tried to be very vigorous. Some of the Pernetianas are hard to start from cuttings, but these varieties are also difficult to grow when budded. Los Angeles is the most perverse. It is almost im-

possible to start Los Angeles from cuttings, and it is almost as hard to grow it well on nursery-grown understocks. The bushes get smaller and smaller each year and finally die. The only way that I have been able to grow beautiful Los Angeles roses is to plant the stock in my garden and bud the roses on the planted stock and never move them. Five years ago the city of Portland gave to the city of Longview, Wash., 600 bushes of these beautiful roses. For two years they were a grand sight, but now they are all gone. Los Angeles, in my opinion, is one of the most beautiful roses ever introduced, and is worth all the trouble that is necessary to grow it. Mme. Edouard Herriot, one of the finest of the Pernetianas, roots easily and soon develops into a strong and sturdy bush. It flowers freely, is one of the earliest roses in the gardens of the West, is very hardy, and never winterkills. Some of my finest bushes of this variety are on their own roots. In our climate this rose comes on good stems and is splendid for cutting and for exhibition. Golden Emblem should be tried, as it is still the most beautiful yellow rose. Padre, William F. Dreer, Souvenir de Claudius Pernet, and many others do well on their own roots. Willowmere is one of the most beautiful roses in my garden and grows well on its own roots. Some of my finest exhibition roses have come from these own-root plants. Juliet is a vigorous grower and blooms splendidly on its own roots. It also makes a splendid stock for budding standards. I have several of these roses on their own roots grown as standards, and they are a beautiful sight when in bloom. There are many of the newer Pernetianas that I have not had an opportunity to try, but from my experience with this class of roses in our climate, I think they will nearly all do well on their own roots. They are at least worth trying.

Hybrid Tea roses do well in our climate and are more than satisfactory on their own roots. Mme. Butterfly, which is my favorite rose, is vigorous and does well. It is splendid for cutting, for garden display, and for exhibition. Last year, at the Portland Rose Show, I had a bouquet of these roses with stems about 3 feet long. They towered above any of the other blooms in this class. These roses were cut from own-root plants.

A neighboring nurseryman told me that own-root roses were not worth bothering with as budded roses would produce ten

times as many blooms, but he was unable to pick out the budded and the own-root roses in my garden—the growth was so nearly the same. He was convinced, after looking at the own-root bushes, that they were strong, healthy, and, in some cases, fully as good as the budded varieties. The bushes of Mrs. Arthur Robert Waddell particularly impressed him. He stated that these were the finest that he had ever seen, much finer than any that he had been able to grow on budded stock.

All the Hybrid Tea roses that I have tried have prospered on their own roots and have more than repaid the trouble in growing them. Mrs. Charles E. Russell does well on its own roots and has been a consistent prize-winner for me at the Portland Rose Show. Pharisäer, Imperial Potentate, Mrs. J. C. Ainsworth, Mrs. Henry Morse, Duchess of Wellington, General MacArthur, Mme. Caroline Testout, Hadley, K. of K., Mrs. Arthur Robert Waddell, Mrs. Joseph H. Welch, Miss Cynthia Forde, Winnie Davis, Irish Elegance, Irish Fireflame, Isobel, Sunburst, Mme. Mélanie Soupert, Mrs. Aaron Ward, Margaret Dickson Hamill, Frau Karl Druschki, J. B. Clark, and many others of this class have been tried and do well on their own roots. Hadley grows well and is one of our most beautiful red roses. I noticed, in reading an eastern catalogue, that Hadley is a poor grower there. In our climate it grows from 5 to 6 feet high and gives blooms on stems 3 feet long. The blooms keep well and are beautifully formed. This is one of my favorite varieties and should be in every garden in the West.

In nearly every issue of the Rose Annual there are some suggestions on how to start roses from cuttings, but I might add a few hints that would assist some who wish to try this method of propagation. I do not have a regular bed, but merely prepare a place in my garden by spading and working the soil deeply.

Cuttings should be planted in the fall of the year. I make them 7 to 8 inches long and put them in the ground three-fourths of their length. In order that it will heal easily, I cut the bottom of the cutting with a sharp knife, as it is necessary for the rose to callus before it can throw out roots. The cuttings are all planted outdoors and are not given any winter protection. Most varieties will bloom in seven to eight months.

# Wintering Roses in Manitoba

By GEORGE F. SYKES, Brandon, Manitoba, Can.

EDITOR'S NOTE.—Two comments may well be made on Mr. Sykes' candid statement. Better proof of the universality of the desire for good roses could not be had, or of the vigor and devotion toward providing them. Think of digging a 10-foot pit to carry over roses!

The second comment relates to our friends in the South, who, taking no particular trouble, complain that only Radiance will give them roses. Several southern friends who are elsewhere in this Annual detailing their difficulties may well consider what might occur with them if they made half the effort Mr. Sykes makes.

PERHAPS it would be of interest to tell my experience with roses on the Manitoba prairies, where winter is *winter* in earnest from November to March, and in the two months next preceding and next following that period the thermometer is likely at any time to vary 50° to 60° Fahr. in twenty-four hours, while alternate periods of nearly summer heat and nearly zero weather are a common experience.

I first pinned my faith to Hybrid Perpetuals and shrubbery roses, species and subspecies, as being the hardiest and most suitable for this climate, but found the former usually killed back sufficiently to preclude a June crop of bloom, while the buds on the new wood were caught by early fall frosts.

Most, in fact, nearly all, of the shrubbery roses kill back also, if not every winter, at least periodically, and grow too large to be covered. Those which bloom on the new wood in July and August give a good account of themselves and include the Rugosas and first crosses, such as Hansa, F. J. Grootendorst; also Mme. Hardy and the Provence Rose. Many of the species roses make a rampant growth in the summer and kill back in winter, only blooming on the branches which trail on the ground. This also applies to Harison's Yellow, Spinosissima, Hugonis, Moyesi, Austrian Copper. Agnes is hardier and does not kill back so much with me. Persian Yellow does well in a dry, sunny location, but with me produces blooms which rot at the heart and seldom develop properly. It kills back periodically and is subject to black-spot and defoliation.

Growing Hybrid Teas is much more encouraging. There are a large number of varieties from which to choose, practically as

winter-hardy on the Manitoba prairies as the Hybrid Perpetuals, every plant of which may be depended upon to give bloom at some time during the summer months. Even if they do kill back to the soil-level, they will produce bloom on the new wood long before there is danger of fall frost. The problem is to ascertain the best method of wintering them, which is, judging from my experience, by digging them up and pitting them.

Our greatest danger lies in the killing spring frosts and the drying winds after active growth has started the tops, while the roots are still frozen in the ground.

My garden slopes north, has red clay subsoil with 2 feet of mixed clay and black loam top-soil, deeply worked and friable but retentive of moisture and without artificial drainage.

At first I imported in the fall two-year field-grown stock budded on Ontario briar, trenched and buried them in the regulation manner during the winter, and lost them all.

Next I purchased for spring delivery and tried hilling up and covering with roughage. A few bushes succumbed; the rest were alive up to soil-level. I uncovered them about May 1. A killing frost after the middle of the month destroyed the new shoots, and a large percentage failed to recover from the shock.

Next I tried tying up the bushes, placing around them pipes filled with dry sand, capped to keep out the moisture. In the spring the sand became wet by capillarity from the melting snow, and practically all the bushes perished.

Next year I hilled up the bushes with soil, drove in stakes, and enclosed the rows with 12-inch boards at the sides and board covers, leaving 2 inches opening between sides and roof, and did not remove the boards until after May 15. This treatment was very successful.

A year ago my rose-garden was, by force of circumstances, neglected in the fall, entailing heavy losses. Last winter, I dug a pit 10 feet deep, placed 6 inches of loam in the bottom, and heeled the bushes in, covering the pit with hotbed frame and sash, ventilating with one 6 by 6-inch hooded ventilating-shaft, reaching above snow-level. The roses, perennials, and alpines of varieties not quite hardy in Manitoba are, so far, in perfect condition. The pit is still covered (April 8) and the contents in a semi-dormant condition.

# Roses in Iowa

By MRS. RALPH ORWIG, President Iowa Rose Society, Des Moines

EDITOR'S NOTE.—Here is a plain statement of fact from the "Blizzard Country." With plans for rose shows and a "Bulletin" devoted to roses, referred to elsewhere, it is quite evident that Iowa no longer considers herself outside the rose-growing zone.

AFTER having grown roses in Des Moines for twenty-four years, with some of the original plantings yet alive, I feel that all those who say roses cannot be grown successfully in our climate simply do not love them enough.

Our greatest problem is bringing our roses safely through our winters of alternate freezing and thawing. Unfortunately, we seldom have that enviable blanket of snow for any length of time which our more fortunate neighboring states have all winter.

Of course, we regret ever losing a rose, but when we consider the amount of bloom one two-year-old budded plant gives us in a single season, we feel that we have more than had our money's worth. Then, too, if all of them lived, we would have no room for trying the new varieties so tantalizingly described and illustrated in color in the new catalogues.

In preparing our new Hybrid Tea rose-garden last year, we laid tile about 3 feet below the surface. We mixed with our yellow clay soil (one of our rose-blessings) well-decomposed, strawy barnyard manure, cow-manure (our greatest rose-blessing), bone-meal, wood-ashes, and sand. Over the surface, to keep the clay from baking in our hot summer weather, we used about 3 inches of very light black soil, rich in lime, which made cultivating almost a joy.

After the first winter, we lost only two plants, and that was due to not personally overseeing the staking-down process, two plants being broken off. Next time we will tuck them in ourselves—and hope for the best!

We will sweep the garden with a very stiff broom, after which we will use a light application of sulphate of iron (we try anything anyone suggests in our fight against black-spot).

Then we will spade in liberally Sacco and a little lime. The plants will be carefully staked down and entirely covered

with 1 foot of light black soil. This treatment applies to the Hybrid Teas, the new climbing roses, and Polyanthas. The climbers we have always treated in the same way, but they have become so large and hard to handle that this year we are going to try wrapping them with burlap, banking them 12 to 18 inches around the base, laying them down, and covering only the tips with earth. The Rugosas, rose species, and Hybrid Perpetuals we bank with earth about 12 to 16 inches.

Last spring we tried a new experiment in fertilizing. Instead of using liquid manure often during the season, we gave one application, May 1, of 4 inches of fresh cow-manure, covering it with a light black soil. It worked wonders! There couldn't have been more blooms and there was much less black-spot than in former years. Our thought in doing this was to so strengthen the plants that they would more successfully resist black-spot. It may have been the season, but we like to think it was the cow-manure that caused the plants to give us so much more bloom and less black-spot. The roses most affected with black-spot this year were Souvenir de Claudius Pernet and Phyllis Bide—nevertheless, both bloomed constantly.

We are enjoying the several varieties of rose species. As a screen for our drive and background for our Hybrid Teas, they are most satisfactory. We plan to add more varieties next spring. We are especially delighted with growing climbers as pillars in our perennial borders. They add greatly to the interest and beauty of the garden.

As proof of what can be done with roses in Iowa, there were, at the Rose Show of the Iowa Rose Society, last June, as perfect and beautiful roses as I have ever seen any place in the country. Two collections of Hybrid Teas, including thirty or forty named varieties, attracted much attention, as did a collection of old-fashioned dooryard roses. The Polyanthas, Gruss an Aachen (the most profuse bloomer of all), and Ellen Poulsen, and the Climbing Hybrid Teas, Bishop Darlington and Climbing Lady Ashtown, were prize-winners.

We hope to have a much bigger and better rose show next June at Indianola, 18 miles south of Des Moines, where we will welcome American Rose Society members who would like to see what can be done in Iowa by real rose enthusiasts.

# New Roses in Central Florida

By GRACE H. SIMONSON, Lake Alfred, Fla.

EDITOR'S NOTE.—Lake Alfred is not far from the wonderful "singing tower" and bird sanctuary of the late Edward Bok. The climate differs materially from that of South Florida. Nevertheless, the plain facts below set forth ought to put right those who are afflicted with "Radiancitis."

THIS FIRST week in December my roses are still flowering and seemingly getting better and better. They are in fine condition now and have been in bloom since the last of March continuously; and though some only slow up from time to time, as a whole, they have done more than well. Not a single rose bush has died during the so-called wet season, and the newer, more high-bred (so styled) varieties have shown more growth and bloom than the roses supposed to thrive best in Florida, though all have had the same care. I am entirely convinced that the idea that certain types will not grow is wrong, and would be willing to put any type to the test.

I have not made any point of climbing roses, although a Maréchal Niel and a Climbing Columbia on the slat house do well. I am not able to attend to them personally, and it is hard to get experienced help. I have been troubled somewhat with black-spot this summer, but have kept it in check with Pyrox. The sulphur and lead arsenate have never been effective with me, though I use them sometimes, but too many showers a day make it an impossibility.

My roses have had more cultivation than other people give them down here. I do not use a mulch of dairy manure in summer as invariably recommended. It prevents cultivation, and I find it is impossible to get it free from disease and weeds. I fertilize about once a month from February or March to or through November—about nine months. I use bone-meal three times a year, about a pound to a bush, and in between, sheep-manure, ground tobacco stems, fish-meal, or a complete fertilizer—a varied diet—as I decide the occasion demands, in quantity to meet the needs of the individual plant. And I cultivate about once or twice a week, very unevenly, leaving the ground in a rough state, as the hollows and ridges keep the ground cooler with the shadows than an even surface.

I plant all my bushes personally, 3 by 4 feet, and have the ground specially prepared with a clay base, etc. The bushes usually stand as high as my hips, and when long canes rise to 5 to 6 feet, they are trimmed back after flowering, often to within 6 to 8 inches of the ground. All flowers are cut with very long stems, and I keep all dead wood cut out whenever it shows itself, so that the bushes are always green and young. I do not prune in the spring and fall very much.

I have roses on Multiflora, Manetti, and Texas Wax stock from Texas, Georgia, Connecticut, Pennsylvania, and all have done well. All the nurseries have sent me good, healthy plants, and I have not found that any roses died on account of unadaptability of stock to Florida.

The people of Florida usually plant roses in the winter (November and December are the best times, I find), and expect them to just grow because it is Florida! Almost everybody goes north in summer (I don't), and roses are left to care for themselves or to the ministrations of some colored man who cares little and knows less. The weeds grow and grow, and soon swallow up the rose-garden.

People are told that a severe pruning in October is needed. The nurserymen tell you it is only necessary to snip off the flowers and their bushes only have little short stems to snip off. Radiance and Louis Philippe seem to grow large bushes sometimes under this treatment, but the flowers are really hardly worth picking, being small, insignificant blooms of no substance and decidedly monstrous. Yet the local growers do not encourage planting anything else except Kaiserin Auguste Viktoria for awhile, which if trimmed and cut a lot does have beautiful roses. A limited list has been encouraged. It is easier for them to say the new, untried roses will not grow, because they probably know the treatment generally accorded them. But I think from now on they will find the new roses will be demanded, for people are learning what they need.

I am sure a real rose enthusiast would have little trouble making the roses he cares for thrive in Florida. I have many roses not mentioned and many splendid ones, though all are Hybrid Teas and some Teas. All are grown in the rose-garden, but sometime I shall try roses in the shrubbery.

# The Rose Along the East Coast of South Florida

By ERNEST F. COE, Miami, Fla.

EDITOR'S NOTE.—Writing from almost the "jumping-off place" of the eastern Atlantic Coast, Mr. Coe, a man of long experience with plant-life and plant-use, provides encouraging possibilities for roses in South Florida. To grow there the Tea roses that the climate suggests, to undertake the originating of suitable new sorts, to avoid the varieties climatically unadapted, is the counsel of common sense.

When one contemplates what may be done in this favored climate with the neglected Tea roses, there arises the hope that someone will get busy about it soon! Think of breeding into the Teas the superb reds we now have, to say nothing of the copper and apricot and flame tones! If this is done, all the rose world will stand debtor to South Florida.

FLORIDA, from Fort Lauderdale southward along the East Coast, and extending inland from one to ten or more miles, is underlaid with limestone rock. Over extended areas this formation appears at the surface. Erosion has carved these exposed surfaces picturesquely in many places, showing up most advantageously from the picture angle in the hammock areas, which are districts covered with dense growths of semi-tropic and tropic trees and shrubs, mostly evergreen and richly festooned with clinging vines, especially along their borders, including several orchids and other interesting air-plants.

Pockets of varying size and depth occur through this rock-formation, which have mostly become filled by the wash from the surrounding areas. These pockets often support a vigorous growth of plant-life.

This limestone formation varies greatly as to altitude, from far below sea-level to 25 feet above. Where it drops below sea-level, along the coast and back country, the natural agencies through time have created many types of fill formations, varying through a variety of ocean sands, clay marls, muck, peat, and, in the higher portions, pockets of leaf-mold. Nowhere in this section, however, are there soils which have the appearance of what experienced rose-growers would pick out as typical rose-soils.

As far as I have been able to observe, none of the native roses which occur abundantly in the upper part of the state

and northward are found wild in this section; in fact, the rose family generally is absent from the local flora. This is also true of the heath family, although here and there, in locations free from lime reactions, will sometimes be found huckleberries and andromeda. With seemingly no native roses within this area, one might wonder just what is the reason. Is it the climate, soil, natural enemies, or a combination of all three?

The practical question to those who want roses in their gardens is: Will they or will they not grow? The answer is, happily, that many types and varieties of roses not only grow but also thrive abundantly over this entire area, provided a few uniformly demanded requirements are met. Among these are drainage to maintain a soil free from souring, ample water-supply, sufficient fertilizer, and a sunny location, preferably partially sheltered from the wind. Under these conditions we grow some very fine roses indeed in Dade and Monroe counties.

Few types of roses and but few individual plants remain vigorous here for more than three years, though there are many instances to the contrary. We seldom have more than a very occasional light frost in this section, even during the winter season, and while seldom in the summer will the temperature reach above 95° Fahr., climatically we are semi-tropic to tropic.

We find that the types of roses which do well where the winters are long and the ground freezes hard do not take kindly to our conditions. None of the ramblers in which Multiflora, Rugosa or Wichuraiana is a race-factor seem to thrive here, though they will sometimes linger along indifferently. So far, the best rootstock for the modern, finely bred Hybrid Teas is what is here known as Texas Wax (*Rosa odorata*)*. Most of these ultra-modern hybrids, especially where the Pernet or Austrian Brier blood is a factor, bid fair to be short-lived here.

It is probable that the nearer we approach here to the pure Tea types (*R. odorata*), the more permanent will be our efforts. It is this blood that has been a dominant factor in both delicacy of form and color and that elusive Tea fragrance in the Tea hybrids which is so much desired and sought for.

*This is the famous S.P.I.22449 about which there has been so much discussion. It is certainly time to drop the name "odorata" because its relation to the Tea rose, the true *R. odorata*, is so remote. It is evidently a form of *R. chinensis* which once bore the name of *Indica major* in this country and is still so called abroad.—Editor.

Some of the most alluring of both our bush and climbing roses here are either pure or nearly pure Teas. This Tea type seems better suited to our climatic conditions where the ground never becomes thoroughly chilled and the summers are long.

It is anticipated that we will soon have a National Botanic Garden in this section, and thereby be in a position to try out all the available species and varieties of roses which may give promise of success here. It will also enable us to institute a systematic series of cross-breeding of such types and forms as bid fair to give us better and then even better roses for our local gardens.

I have given no list of roses with this article, as practically all the well-known varieties, within the limits indicated, thrive with varying degrees of success, and any two rose-growers' lists might vary greatly. Generally the leading nurserymen in this section are plant experts, and I find them all quite willing to give advice as to soils, varieties, care, and sorts especially adapted to special locations.

Our ideal rose and roses, it is my belief, are yet to be bred right here, and systematic work along this line offers a rich field to the hybridist and rose enthusiast individually, to rose societies and experiment stations. In the meantime, the world will call him blessed who will discover some remedy for the arch enemy to the rose and so many other plants and trees, the eel-worm (nematode).* He is guilty of doing a lot of damage here as well as elsewhere, interferes with vigorous growth of our roses, and shortens the lives of our favorites generally, especially where the ground remains dry for any considerable length of time.

The American Rose Society can look forward to an ever-increasing membership from this section, which is no exception to the country at large in this at least. We rejoice that roses will respond to intelligent treatment here, and we need and want the help and encouragement this splendid Society is giving to every corner of our country and to the entire world.

*Attention is called to the investigations begun at the Tennessee Agricultural Experiment Station reported by Prof. McClintock, on page 72.

# Roses in the South

By D. M. HASTINGS, Atlanta, Ga.

EDITOR'S NOTE.—These rose-growing details for the South may seem primary to those who have progressed beyond the idea that only Radiance will flourish in the South. Mr. Hastings, from a large experience, is reaching toward the many who need and can have the joy of more and finer roses. The Editor is somewhat surprised that he has not mentioned a use of the hardy climbers which his brother, W. R. Hastings, showed in picture in Plate XV of the 1925 Annual. The R. D. letter-boxes covered and protected by climbers were made objects of beauty.

WE of the South are very fortunate in not having to worry about the hardiness of roses. Our winters are seldom severe enough to do more than frost the soft, new tips of the very tender varieties, particularly if the plants are field-grown and mature. Small, greenhouse-grown plants frequently require protection the first winter, if it is at all severe. All types of roses grow in mid-Georgia and north of it, and do well if they are properly used. Florida, especially in the southern counties, does not take so kindly to those classes which seem to need cold winters to mature their wood. But Florida has its compensations, for all the Tea roses and most of the Hybrid Teas prosper, while the Noisettes, the Cherokee varieties, and the lovely Macartney or Bracteatas have escaped from cultivation so that they are virtually native. The warmer parts of the South also have the advantage of the Banksia roses, which grow to great size and beauty.

Teas and Hybrid Teas are in general the most popular, and form the basis for the love and admiration that millions of our people hold for the rose. They are used primarily in beds for cutting or massing color effects. Hybrid Perpetuals generally grow quite rankly, and it is necessary to cut them back severely to keep them within reasonable bounds.

The exquisite little Polyanthas, growing compactly about 18 inches high, are not yet properly appreciated in the South. They are excellent for the borders of rose-beds, for edging, massing, and dwarf hedges. Polyanthas can be used extensively to complement various shrub plants and add a note of bright and continuous color in almost any type of landscape design. The newer sorts are most attractive.

PLATE XV. A white Banksian rose in North Carolina
See J. L. Ludlow's story of this rose in the Rose Notes

PLATE XVI. Back-yard rose-garden of M. Urbach, Omaha, Neb.

See Rose Notes

The most variable class of roses with which we have to deal are the climbers, and with such a large range of varieties to choose from, we may find them in almost any color and any degree of vigor. With so many porches, fences, banks, stumps, pergolas, trellises, and walls to cover, we should use very many of these beautiful climbers, especially since we need not fear their loss from winter-killing, which complicates growing many of them farther north.

The climbing roses of the rambler type, which are characterized by extreme hardiness and vigor, are terribly subject to mildew here. Dorothy Perkins is one of the worst offenders in this class, but many similar varieties are undesirable in spite of their great beauty, because the mildew which they breed readily spreads to other roses, where its effects are much more deadly than on the ramblers. All such varieties should be replaced by more resistant climbers or should be removed to a safe distance, if they are wanted especially. The large-flowered Hybrid Wichuraiana roses constitute our most important climbing group. They have a full range of color, and give us flowers of almost any size, fully double to single, and vary in habit from the pillar form to rampant travelers which seemingly attempt to encircle the globe.

The climbing sports of Hybrid Tea varieties are also desirable, and in some cases do better than their parents; but in any consideration of climbing roses for the South, we must not fail to give full justice to that grand old representative of the tender class of Noisettes, the rose which holds more pleasant southern memories than any other—Maréchal Niel. Its grace, color, and fragrance are unexcelled. Perhaps the tradition gathered about this rose compels us to give it this tribute, but all who know Maréchal Niel are surely agreed wholeheartedly. Its only serious fault is its inability to withstand much cold, thus confining its glorious display to those regions farther south, unless winter-protection is used.

Besides these groups of climbers, miscellaneous sorts, such as the Cherokee, Macartney, and Banksias are available in almost their original forms. The plant-breeders may, and ought to, give us combinations of them which will gain greater prominence in southern gardens in the future. For example, the

delightful Bracteata hybrid, Mermaid, in the South, provides a constant succession of 5-inch single primrose flowers and has beautiful shining foliage.

The Chinas and Bourbons are relatively less important in the South, and the same is true of the Hugonis, Rugosa, and the old-fashioned Cabbage and Moss roses.

In undertaking to grow roses in this part of the country, there are several main principles to follow:

1. *Provide as much sunshine as possible.* Plenty of sunshine conduces to fine growth and quite noticeably deters various insect and disease pests. Practically all varieties develop more color in full sun than in partial shade, and full sunshine is almost indispensable to develop an abundance of bloom. Yet roses do flourish in even half shade and no one should be deterred from enjoying them who cannot provide full sun. Free air movement is important; shaded corners in which there is no air-circulation encourage mildew and discourage bloom.

2. *Provide adequate surface and subsurface drainage.* Some so-called rose experts scoff at the idea that roses suffer from wet feet, but they are entirely wrong. If the soil is saturated with water, the roots will be prevented from properly absorbing nourishment and the plant cannot help languishing.

3. *Provide proper food-supply.* Roses will give only a mediocre return unless the food-supply is ample. This can be easily understood by considering the amount of growth the plant must make to replace the wood taken away when the flowers are cut, and when the plant is periodically pruned. Common stable manure produces wonderful roses when properly used. This means thoroughly mixing it with the soil, after composting it from six to twelve months to insure decomposition. One of the ill effects of manure lies in the injurious insect eggs, larvæ, disease spores, and seeds which find harbor in its warm hospitality. Possibly the best substitute for stable manure compost is the sterilized product known as sheep-manure, which is said to confer the benefits of stable manure compost without its injurious hazard. Animal manures in general mellow the soil, conserve soil-moisture, and provide small quantities of nitrogen. To give roses a balanced diet, use bone-meal and wood-ashes, mixed thoroughly with the soil. As these slower-acting

foods break down, phosphorus and potash, both essential to good roses, are made available. During the growing season, when the drain on the plant is the greatest, a complete fertilizer maintains steady growth. Any of the well-known, advertised brands can be used if the directions of the manufacturer are followed with reasonable care.

4. *Provide adequate water-supply during summer droughts.* Regular, thorough soakings are necessary if roses are to do their best during the rainless weeks which frequently occur during the growing season in parts of the South.

Good rose blooms, to be compared with those of experts, may be produced by providing sunlight, drainage, food, and moisture. We have seen roses succeed on the stiff clays of the Upper South and on the sands of the Lower South, and even on the beds of muck bordering Lake Okeechobee toward the lower tip* of Florida, proving that roses are most adaptable. Indeed, the rose is proved by its vast adaptability to be actually, if not officially, the national flower.

Roses may be bought as own-root or budded plants. As to choice between them, it is necessary to say only that the demand for budded stock has grown greater and greater each year, while that for own-root stock has diminished in so far as field-grown plants are concerned. The small greenhouse plants, generally on their own roots, are desirable because they provide roses for those of very moderate means, so that a considerable collection may be assembled at little cost. These greenhouse-grown plants are quite small, and must be handled very tenderly through the first year, requiring a second season's growth for full flower development and to make them comparable with field-grown plants, either budded or own-root.

Greenhouse roses should be planted only in the spring, after severe weather has passed, except in the Lower South. Full size, two-year-old, field-grown plants, whether own-root or budded, can be planted in the fall throughout most of the South to great advantage, to begin root-growth at once and to establish themselves so that they are ready when the first spring urge comes upon them, to burst forth with their earliest and most exquisite bloom. Southern nurserymen supply roses

*See also Mr. Coe's article beginning on page 117.—Editor.

regularly at that time of the year. Planting roses during the midwinter months is almost as good, but usually the weather is so raw that the work is disagreeable. Planting in spring is good practice, except that the early, fine, specimen blooms are lost.

Many times the future of a rose plant depends entirely upon the treatment which is given it when it arrives from the nurseryman. Careless treatment often causes a set-back that results in a stunted plant. The roots must be kept well moistened at all times. When ready to plant, broken and extra-long root-tips should be trimmed off and the plants set in the hole* as nearly as possible in the same position they grew in the field. The soil should be made very firm about the roots. A good plan is to leave a depression about 2 to 3 inches deep about the plant and fill it with water. This firms and settles the soil about the roots and helps the plant to begin its functions. Later this may well be filled with loose earth, kept loose and fine, and acting as a mulch to retain moisture.

When growth begins in the spring, the beds should be hoed and weeded, and the loose, thin soil should be kept over the entire area through the season. A liberal mulch of leaf-mold or granulated peat serves instead of constant cultivation in some gardens, and is found very effective.

Black-spot is the most serious rose disease, and it spreads rapidly in warm, damp weather. Sunshine and cleanliness are the best preventives, but spraying with bordeaux mixture or dusting with dusting sulphur will help control it. The same is true of mildew. ("Dusting" sulphur is not the ordinary "flowers" of sulphur, but a special, though inexpensive powder obtainable of your seedsman.)

A certain form of die-back is quite common in many rose-gardens. There is no certainty that it is a disease; it may result from improper planting, insufficient pruning, excessive shading, wet feet, and starvation. Its control consists in correcting the improper conditions which caused it.

Aphids are almost the only troublesome insects, and they may be controlled by a preparation of nicotine sulphate such as Black-Leaf 40, or a spray of a pyrethrum base such as Ever

*The hole ought to be liberal in size and ample to accommodate the full spread of the roots. This hole, also, should be dug in well-prepared ground; it is futile to expect success when plants are thrust into little excavations in hard or uncultivated ground.

Green; or the Massey dust (9 parts dusting sulphur and 1 part powdered lead arsenate), as recommended by the American Rose Society, may have 1 part powdered tobacco stems added, when it will, if properly applied before a rain, tend to control aphis and other insects, as well as black-spot and mildew.

In late winter or very early spring, before growth gets under way, roses must be pruned. Severe pruning gives fewer flowers, but they are larger, finer, of richer color and fragrance, and have much longer stems. Roses may be pruned to within 5 to 6 inches of the base of the plant, and give wonderful results. Hybrid Perpetuals ought not to be cut back quite so hard. The pruning of climbers depends largely upon the use which is made of them. The ramblers and large-flowered Wichuraianas can be pruned to almost any extent, but climbing Hybrid Teas need to be handled with a little more care. Most of them should be pruned only for necessary shaping and for the removal of dead or diseased wood.

During the summer, a steady supply of roses may be insured by promptly cutting the flowers as they appear, thus keeping the plant cut back so that it will be continually throwing out fresh, new growth. Some Hybrid Perpetuals may be induced to bloom all the time by following this practice.

There are so many good varieties to choose from, and preferences vary so much, that it is very difficult to make a list of roses to suit everyone's ideas and experiences. In order to give an adequate range of color, only three varieties were chosen in each color in the following list. We separated them by color groups because of the danger of including too many pink varieties, since there are so many roses of that shade.

### *A "Baker's Dozen" for Southern Gardens*

PINK
- Radiance, HT.
- Mrs. Charles Bell, HT.
- Mme. Butterfly, HT.
- (*Alternate,* Mme. Caroline Testout, HT.)

RED
- Red Radiance, HT.
- Etoile de France, HT.
- Francis Scott Key, HT.
- (*Alternate,* Crusader, HT.)

YELLOW
- Lady Hillingdon, T.
- Mrs. Aaron Ward, HT.
- Safrano, T.
- Sunburst, HT.
- (*Alternate,* Alexander Hill Gray, T.)

WHITE
- Kaiserin Auguste Viktoria, HT.
- White Maman Cochet, T.
- White Killarney, HT.
- William R. Smith, T.

## *Choice New Varieties for Southern Planting*

RED
- Etoile de Hollande, HT.
- Hawlmark Crimson, HT.
- Irish Sweetness, HT.
- Miss C. E. Van Rossem, HT.
- Sir David Davis, HT.

WHITE
- Edel, HT.
- Miss Willmott, HT.

YELLOW
- Mrs. Dunlop Best, HT.
- Mrs. Erskine Pembroke Thom, HT.
- Souvenir de Claudius Pernet, HT. (Needs care.)*
- Ville de Paris, HT.

ORANGE
- Feu Joseph Looymans, HT.
- Lady Margaret Stewart, HT.
- Rev. F. Page-Roberts, HT.

PINK
- Dame Edith Helen, HT.
- Miss Rowena Thom, HT.
- Mrs. Henry Bowles, HT.
- Mrs. A. R. Barraclough, HT.
- Souvenir de Georges Pernet, HT. (Needs care.)*

VARIEGATED
- Talisman, HT.
- Shot Silk, HT.
- Wilhelm Kordes, HT.

## *Favorite Climbers for Southern Planting*

Climbing American Beauty, HW. Deep pink.
Dr. W. Van Fleet, HW. Light pink.
Paul's Scarlet Climber, HW. Scarlet-red.
Silver Moon, HW. White.
Emily Gray, HW. Yellow.
American Pillar, HW. Pink and white.
Maréchal Niel, Cl.N. Golden yellow. (Needs protection.)

## *New Climbers of Note*

Mary Wallace, HW. Pink.
Black Boy, Cl.HT. Deep red.
Dr. Huey, HW. Dark red.
Breeze Hill, HW. Pink and fawn.
Albertine, HT. Peach-pink.
Coralie, HW. Coral-pink.
Jacotte, HW. Orange.
Mermaid, HB. Creamy white.

## *The Favorite Hybrid Perpetuals for Southern Planting*

Frau Karl Druschki. White.
Paul Neyron. Dark pink.
General Jacqueminot. Red.
Georg Arends. Clear pink.
(*Alternates*, His Majesty, red; Mrs. John Laing, rose-pink.)

## *Favorite Polyanthas for Southern Planting*

Baby Doll (Tip-Top). Variegated.
Cécile Brunner. Pink.
Miss Edith Cavell. Red.
Clotilde Soupert. White. (Semi-dwarf.)

## *Much Better Newer Polyanthas*

Ideal. Small red flowers.
Chatillon. Medium light red flowers.
La Marne. Medium pink flowers.
Lafayette. Large bright red flowers.
Gruss an Aachen. Large pink and white flowers.
Mrs. Wm. G. Koning. Small white flowers.
Golden Salmon. Small orange flowers.
Kirsten Poulsen. Large crimson flowers.
Else Poulsen. Large pink flowers.
Salmon Spray. Large pale salmon flowers.
Evelyn Thornton. Large; apple-blossom-pink.

*Both Souvenir de Claudius Pernet and Souvenir de Georges Pernet seem to require diligent protection against black-spot and, too, must not be pruned too severely, but are so good otherwise they deserve a trial.

# Roses for Oklahoma

By JOSEPH A. BRANDT, University of Oklahoma Press, Norman, Okla.

ALMOST all roses grow in Oklahoma, but all do not flourish. Lying in the south-central portion of the United States, Oklahoma has as much sunshine as California; it has the summers characteristic of the southland, but its winters are reminiscent of the north, except that there are few days without sunshine. Mostly a plains state, Oklahoma nevertheless lies fairly high, as at Kenton, in the Panhandle, where the altitude is 4,500 feet. Seasonal changes in temperature are great, varying from zero in the winter to more than 100 degrees above in the summer. Over the state play high winds. Rainfall varies from about 45 inches in the southeastern part to about .15 inch in the northwestern corner. The western part of the state is almost semi-arid. Thus there can be no generalization for the grower of roses in Oklahoma, unless it be that he must select roses resistant to a wilting sun.

This winter, an Indian summer brought fall-planted roses into full leaf two weeks before Christmas; then came a blizzard, with a 40-degree drop in temperature. Such a condition happens frequently. Especially in the springtime do roses yield to the flattery of the sun and join, all too early, in the Easter parade, with the result that the bolder roses are frost-bitten. Last summer there was no rain for two months. Hybrid Tea roses sulked and pretended they were Hybrid Perpetuals. Fall rains brought the greatest abundance of roses ever seen in Oklahoma. Variety? Certainly we have it!

At the first state meeting of Oklahoma Garden Clubs, held last spring in Norman, the question of the best roses for Oklahoma was discussed at the rose conference presided over by Mrs. Samuel Weidman of Norman. Mrs. Weidman asked the writer to conduct a survey of American Rose Society members in the state for a list of sun-proof roses. Not all members responded to the questionnaire, nor did all of those replying follow the percentage system on which the relative merits of roses named were to be based. In addition to heat-resistance,

other qualities sought in roses for Oklahoma were immunity to black-spot and blooming quality.

Roses that do well in Oklahoma, according to this survey, are as follows:

HYBRID TEAS.

*Red.*—Red Radiance, Margaret McGredy, Francis Scott Key.

*Flame.*—Mme. Edouard Herriot, Padre.

*White.*—Edel, Kaiserin Auguste Viktoria.

*Pink.*—Willowmere, Radiance, Mrs. Charles Bell, Mrs. A. R. Waddell, Columbia, Antoine Rivoire, Souvenir de Georges Pernet, Dame Edith Helen, Ophelia, Mrs. Henry Morse, Betty Uprichard, Betty.

*Yellow.*—Ville de Paris, Rev. F. Page-Roberts, Feu Joseph Looymans, Sunburst, Duchess of Wellington, Mrs. Aaron Ward, Souv. de Claudius Pernet.

TEAS.—Lady Hillingdon, Mrs. Dudley Cross, White Maman Cochet, William R. Smith.

HYBRID PERPETUALS.—Georg Arends, Frau Karl Druschki, Paul Neyron, Mrs. John Laing.

POLYANTHAS.—Tip-Top, Orleans, La Marne, Lafayette, Gruss an Aachen, George Elger, Cécile Brunner, Miss Edith Cavell, Salmon Spray.

CLIMBERS.—American Pillar, Dr. W. Van Fleet, Meteor, American Beauty, Columbia, Paul's Scarlet Climber, Mary Wallace, Silver Moon, Lady Ashtown, Sunburst, Mme. Edouard Herriot, Jacotte, Dr. Huey, Christine Wright, Emily Gray, Kaiserin Auguste Viktoria.

I should include in this list Cuba, a vigorous rose of surpassing beauty, and Shot Silk, by all odds the finest rose for Oklahoma, excepting Rev. F. Page-Roberts. Shot Silk produces its blossoms in crops, and then it is alive with its fragrant, short-stemmed, apricot-colored flowers. Shot Silk should suggest a new field for the hybridizer, that of creating a comely rose bush. All of the energies of the hybridizers now seem directed towards the vari-colored rose. Little or no effort has been made by hybridizers to improve the rose bush.

Rev. F. Page-Roberts is likewise one of the most satisfactory roses for Oklahoma. It has the long stem lacking in Shot Silk, is resistant to heat and to black-spot, and it is sufficiently floriferous to satisfy the most exacting rose critic. Rev. F. Page-Roberts was one of the few roses that bloomed through the long torrid spell of last summer. Among yellows, Florence L. Izzard, if accustomed to the sun by degrees, will produce unsurpassed flowers in the fall—flowers no other yellow rose can equal, unless it be Rev. F. Page-Roberts.

Wilhelm Kordes has done very well for me, and I would not

be without it. Lord Charlemont and Etoile de Hollande certainly have their place in any Oklahoma rose-garden. It is a rare sight to watch a Lord Charlemont blossom unfold, like a peacock courting admiration.

Most members of the Society use a ground-cover during the summer, usually of grass-cuttings. A dust-mulch is frequently used. Cotton-seed hulls have been used, but it is reported that they tend to make the ground sour. A number of members use no ground-cover at all.

At the Garden Club Convention, sentiment favored spring planting of roses. The warm, spring-like days that prevail during the early winter tend to bring roses into growth, so that the first frost damages them. While reserving judgment until this spring, I am inclined to think that in the future I shall adhere to spring planting. If roses are planted in the fall in Oklahoma, I believe it should be in late December.

*Rosa canina* is the understock generally preferred, and it is the usual one supplied by Texas and southern nurserymen. But there is no unanimous agreement among Society members as to understock, some favoring Multiflora, others Manetti, and still others, Ragged Robin. The argument in favor of *R. canina* is that roses budded on it come into bloom quicker and that they produce larger blossoms. A number of members favor own-root roses, especially for certain climbers. Certainly own-root roses are not to be scorned in this state, and sometimes produce richer colors than the budded stock.

Methods used for black-spot control include the use of the Massey dust composed of nine parts dusting sulphur and one part arsenate of lead. Bordeaux mixture is also generally used; Mrs. L. Murray Neumann, of Tulsa, practically eliminated black-spot last year by alternating the use of a spray consisting of bordeaux mixture in soapsuds with Uspulin (Bayer) in soapsuds.

The fact that many members responding to the survey suggested that it be repeated may offer a useful service to the "Proof of the Pudding" department of the Annual. A survey of roses that succeed in different states might form a valuable part of the department annually.

# The Best Roses for Texas

By M. W. TERRELL, San Antonio, Texas

EDITOR'S NOTE.—It is the policy of the Annual to print what sincere correspondents write. Thus, Mr. Terrell's condemnation of new roses is given full weight. Of course, he is right in insisting that the five roses he names will do well in San Antonio; but is he right in his insistence that there are now, and never will be, no other roses worth growing in Texas? Contrast his attitude with that of Mr. Coe as to South Florida, and with Mrs. Hampton (page 132.)

THE South, I note, has been advised "to experiment in growing roses, and to break into the Radiance program." For many years, I have been growing roses, have given them much time and attention, spent much money on them, and, for an amateur, have been rather successful. I doubt very seriously if there has been a week in the last two years that someone has not asked me how I grew such wonderful roses, and what kind I grew. I have bought many kinds of roses from almost everywhere, and if I were advising people of the South, especially beginners, or those whose space is limited, I would advise them not to experiment in planting roses, or in any event, to experiment very little, but to take a few varieties that had been thoroughly tested and tried out in their particular locality; otherwise, they will waste much time and money.

I have about 250 roses, and with the exception of one bed of about 20, with which I may still experiment a little, although my experience and better judgment tell me not to, I will have just five kinds—Radiance, Red Radiance, Mrs. Charles Bell, Francis Scott Key, and Kaiserin Auguste Viktoria. The last, while not quite as good as the other four, is beyond question the best white rose. My brother, whose house is next to mine, decided years ago to have only two kinds—Radiance and Red Radiance—and while he has given his roses far less attention than I have given mine, I believe that he has had more success, because I have always been experimenting. I do not know why, except that "Hope springs eternal in the human breast."

I have planted, tested, and thrown away hundreds of roses, and have talked to and written to many rose-growers in this state, and have written to many rose-growers in other states, and I think that practically all of them agree that the three

roses first named are the best for this locality. There is a divided opinion as to Francis Scott Key, and all seem to agree that the Kaiserin Auguste Viktoria is the best white rose. In our hot summer months Francis Scott Key is liable to ball and fade, but in the cooler months it is, beyond question, the most perfect and most glorious of all roses grown here. If one should place in a bowl three Radiance roses, three Kaiserin Auguste Viktorias, and three Francis Scott Keys, just at the time the buds are the prettiest, Francis Scott Key would still be pretty when the petals of the others had fallen.

It is my recollection that a year or two ago the members of the American Rose Society voted on the best twelve roses. I saw a list of the varieties receiving the majority of votes published, but in some way misplaced it. I am sure that I would never advise anyone, in any event, to try more than twelve roses, and I will wager that if he does he will discard at least one-third of them within a year.

I think that many beginners in planting roses have been discouraged by finding them very unsatisfactory, and that many have quit when, had they bought a few of the best, they would have been more than pleased. It is probably true that there is a commercial desire to sell the novelties and a very strong desire to buy them, but I think that the desire to buy many of the worthless novelties is brought about by extensive advertising.

I have never been able to understand why many of our rose-growers advertise and paint their roses in glowing colors, without stating in what localities they do well. They sell millions of roses to people in all parts of the country, many of which are practically worthless in certain sections, when they could supply roses that will prove satisfactory, thereby gaining satisfied customers. Certainly, if a beginner were advised that only a few roses will do well in certain territories, as others have learned by years of experience, he would experiment very little.

I love the rose better than all other flowers; in fact, grow no others. I like flowers with very long, strong stems, and grow them solely for the purpose of cutting them, keeping a few in the house, and giving the rest to friends. If one wants roses for bedding purposes, one can find none more satisfactory than those I have named.

# A Rose Pilgrimage in East Texas

By HALLY BRADLEY HAMPTON, Fort Worth, Texas

EDITOR'S NOTE.—As a large proportion of the roses sold in the country are produced in Texas and California, the understocks and methods used need to be understood. Therefore, Mrs. Hampton's pilgrimage story is most important. It seems regrettable that no report is included of any grower who was considering Texas especially, or who was proposing to supply the neighboring states.

THE East Texas Rose Pilgrimage, originating in Fort Worth, was most successful, considering it was the first Rose Pilgrimage attempted in Texas. The rosarians met at the Tyler Chamber of Commerce at 9 A.M., November 7, where about a hundred rose-growers of East Texas received us and we immediately started on a tour of rose-farms.

The first farm we inspected belonged to M. S. Shamburger, and consisted of about 30 acres of roses budded on Multiflora, all newer varieties.

Next we visited the farm of J. G. Atwood, who uses both Texas Wax and Multiflora as bud-stock. I was most surprised at the size of these plants. Here, varieties that we nurse in our gardens with great care were growing without water or fertilizer and three times the size of any bush I had.

The farm of J. G. Zorn & Sons was the next on our route. Mr. Zorn told me he would have 80,000 bushes to deliver this fall, 75,000 of which were contracted for.

These expeditions completed our morning tour. We returned to the Chamber of Commerce in Tyler where the party from Fort Worth were guests of Mr. Eugene Judge at the Rotarian luncheon. The remainder of the party was entertained by the Texas rose-growers at the Blackstone Hotel. Mr. Judge is a prominent Rotarian and director of the Southern Florists Association. The Tyler Rotarians pledged their support to the American Rose Society, East Texas growers knowing they have one of the most ideal spots in the world for rose-growing. It is surprising the growth the plants make from a light sandy soil which looks like salt and pepper. The subsoil must be 10 to 12 inches down, as I did not find it by digging down as far as I could with my hands. This light sand produces the best wood and the most glorious blooms I have ever seen.

At 2 o'clock we resumed our tour, going to W. B. McGinney's; from there to D. O. Ford's and N. C. Pitman's. Canina and Multiflora are used at these farms for the understock, but I understand most of these rose-growers will use only Multiflora next year.

The next farm we visited was under contract to one of the largest rose companies in the eastern United States, and was the only tract using irrigation. There were June-budded plants and some of the very newest varieties on the American market. For instance, 10,000 Talisman, 20,000 Lady Margaret Stewart, 20,000 Dame Edith Helen, and I presume about the same of Margaret McGredy and Rev. F. Page-Roberts. The man in charge stated there would be 180,000 ready for delivery on January 1. I am sure these were not all the varieties they were growing under irrigation, but they go to show that Texas grows new roses with or without irrigation, and they were the best plants I have seen anywhere.

The next farm was P. C. Moore's, where it was my pleasure to stand in the middle of 50 acres of blooming roses, and where, looking in every direction, I could see fields of lovely roses rolling away out of sight over the hills. I saw very few Radiance in this field. The roses were all good varieties. (I mention the fact that Radiance was not grown because some people believe that only Radiance grows well in Texas.)

The next farm we visited was by far the most interesting, as I. R. Godfrey is not only a rose-farmer but a real rosarian. He has under test in his fields almost every new rose that I have seen anywhere in the United States, and many European importations, some that I have never seen before. One outstanding rose that I could not mistake was Mrs. George C. Thomas. This climber in November was covered with pink-and-yellow-shaded blooms, most attractive foliage, and was a rampant climber considering its blooming qualities. He also had Mme. Albert Barbier in full bloom in November. I will not attempt to mention the varieties I saw there. Each row was a different variety, and we spent two hours going from row to row. Some of the Hybrid Perpetuals grew much higher than a man's head, and were topped with gorgeous flowers. These bushes, like all other rose plants I saw in East Texas, make

good wood and a wealth of bloom. It does not seem necessary to test out individual varieties. All seem to do well in Smith County. A test-garden would be needed only to convince the "doubting Thomases."

This was the last garden we visited that day. Parties coming from Port Arthur wished to start on the return trip before dark; also some of the Fort Worth party returned that evening.

On our way to Longview we visited C. S. Shamburger's farm at Winona, where we saw some of the most wonderfully grown plants on the entire trip. In Mr. Shamburger's field, this summer, a climber sported on Mrs. Charles Bell, which he gave me. From its first year's growth, I expect it to become a rampant climber.

The next day we visited the Verhalen Nursery at Scottsville, Texas. Mr. Verhalen has 3,000 acres of nursery plants, many varieties of evergreens, and fields and fields of paper-white narcissus, but he says that roses are still their bread-and-butter crop. One field I particularly noticed consisted of 8 acres of one variety alone. These were grown under contract for some northern firm, as this rose was a Rugosa and not much used in the South. Mr. Verhalen is experimenting with all the good new varieties, especially the climbing roses sponsored by the American Rose Society. Here I saw Sarah Van Fleet, Glenn Dale, Eugène Jacquet, all in bloom. If these varieties bloom so well in the fall, they are good roses to grow in the South. There were also several Polyanthas under test, lovely reds that will make wonderful dwarf hedges for rose-gardens. Until one sees these Polyanthas in full bloom in the fall, he cannot know what fine hedges they will make. We visited Mr. Verhalen's lovely new home, where Mr. Verhalen, Sr., was introduced to us. Being deaf he did not understand that we were rose pilgrims, and when we were about ready to depart advised us to join the American Rose Society! He seemed very much pleased when he found out we were members already.

Most of these farmers, and especially Mr. Verhalen's nursery, are all wholesale growers, and we were disappointed when they told us that most of the plants are shipped out of Texas in carload lots.

# Mrs. Henry Ford's Rose-Garden

By J. HORACE McFARLAND

IT HAS been the policy of the Annual to present the details of the really great rose-gardens of the world as they became available. There are all too few of them, especially in America, and it is therefore with especial pleasure that an account is here given of one that is unique in many respects, both in extent, in the spirit back of it, and in the results.

The Ford estate at Dearborn, not far from Detroit, is of great extent. I do not know its acreage. On the occasion of my first visit to it, I asked the superintendent, who was showing me the place, how many acres were included. His answer was interesting: "How do I know what the boss bought yesterday?"

Very beautiful, restful, quiet, and characteristic of the vicinity before man "improved" it are the great avenues and the broad spaces included in the Fair Lane estate. That estate is a home in the truest sense, and Mr. and Mrs. Ford enjoy it as a home. The buildings and the gardens together are utterly free from flamboyance and any effort at display. The superb rock-garden, for example, in which Mrs. Ford has located many plants she knows and loves as well as she knows and loves her roses, looks as if it might just have naturally happened, and this naturalness is characteristic of the whole place. There are some intimate roses close to the beautiful dwelling which is the center of this home place, but the great rose-garden I am to describe is properly some distance off, where it has the space and location best adapted to a great collection, greatly placed.

It is entirely characteristic of the Ford methods to know that when the idea of expanding the fine little rose-garden close to the dwelling occurred to Mrs. Ford, she promptly took into consultation the able rosarian who is responsible for so many beautiful rose-gardens, particularly near Boston. Mrs. Harriett R. Foote, with whom the members of the American Rose Society are well acquainted, was called in. She was at once impressed with the opportunity for a larger and greater garden than was possible near the dwelling, and, in her own words, she "made a tour of the grounds with Mrs. Ford and

found the present location." But this beautiful, slightly rolling 3-acre plot, framed by woodland, had been included in the plan for a golf course, and while Mrs. Ford liked the suggestion that a rose-garden be developed here, she was not sure that Mr. Ford would agree. But when he was consulted at lunch-time, Mrs. Ford telling him of the advantages of the site, he said: "Go ahead!"

Now the Ford methods are not haphazard. The Ford engineers made a topographical map of the location, and then Herbert J. Kellaway, a Boston landscape architect, was called into consultation, and there ensued a long and careful study of possibilities, methods, and effects, resulting in a matured plan which met the approval of Mrs. Ford. Then began the preparations as to soil, grading, plants, conferences as to varieties and the like, which resulted in the great garden, the plan of which may be seen on the insert facing this page.

The aim in mind was to embrace in the garden about 10,000 rose plants, including every good variety which it was believed would succeed at Dearborn. This aim has been well carried out, both as to success and varieties. The excavations involved made possible certain delightful grade incidents, which may be noted on the plan at the left end in connection with the "rill" and the upper and lower pools. Just here were worked out effects with hardy climbers that proved to be of entrancing beauty as I saw them last June. The use of Jacotte and Paul's Scarlet Climber as trailers was particularly happy, as was the development of fine specimens of many hardy climbers.

Much use has been made of tree roses. Color contiguity and effect have been carefully considered. With the thoroughness of preparation and planting characteristic of Mrs. Foote's work, it can easily be understood that roses have done well, and that therefore this great garden is very beautiful, not only in its mass effect, but in the quality of individual plants.

There are great rose-gardens in which the rose merely adorns the architecture. Mrs. Ford's garden is not that sort. The rose is dominant all the time, and the architecture only affords opportunity for the development of the beauty of the roses. That is, this is a rose-garden in which architecture is an adjunct, and not a display of good architecture to which roses are incidental.

PLATE XVII. Two views in Mrs. Henry Ford's rose-garden looking in opposite directions

See page 135

PLATE XVIII. Pilgrimage of American Rose Society to Mrs. Henry Ford's rose-garden, Dearborn, Mich.
(Mrs. Ford is standing behind the stone bench)

See page 137

So much for the garden itself. Interested in the American Rose Society, Mrs. Ford invited it to meet in her garden, and this meeting occurred when a hundred or more members of the Society made a pilgrimage to Dearborn the day after the annual meeting in Mrs. Thaw's lovely Sewickley garden (near Pittsburgh) on June 25, 1929.

A rather disturbing explanation must here be made. Mr. Ford and all his belongings share, with President Hoover and Colonel Lindbergh, public interest—or is it curiosity?—to the extent that without some restraint neither privacy nor security nor ordinary comfort could ever be retained. Fair Lane, therefore, has had to be fenced and guarded. But the group of real rosarians who gathered with Mrs. Ford in the garden on June 26 were not "curiosity fiends," and gave her great pleasure, because she was mingling with those who knew and loved the Queen of Flowers as she does, and were able to discuss details with her, as rose-lovers usually like to do.

At the luncheon in the nearby Dearborn Club, which followed the inspection of the garden, Mrs. Ford was apprised of her election at the annual meeting as a Trustee of the American Rose Society, which honor she gladly accepted, because, as she said, it brought her into contact with those who knew roses, and therefore were worth knowing.

It is Mrs. Ford's deep regret that the conditions above mentioned make it impossible to open this garden completely to the public, and it must be understood that the restriction has been forced upon Mr. and Mrs. Ford by the sort of curiosity and discourtesy all too characteristic, not of rose-lovers at all, but of the thoughtless members of the general public who have other ideas than to see roses in going to a great garden. It is not improbable that an arrangement can be made so that the showing at the gate of an American Rose Society membership card will permit a visit.

The pictures presented in Plates XVII and XVIII may give some idea of the form in which this great garden has been developed, but can give no real impression of the beauty of the rose-garden, which fits its environment and its owner most perfectly.

# The International Rose Test-Gardens

By REV. SPENCER S. SULLIGER, Curator, Portland, Ore.

EDITOR'S NOTE.—Great value will increasingly come to attend the findings of this notable garden, conducted as it is by a devoted and able rosarian.

THE International Rose Test-Gardens, Washington Park, Portland, Ore., authorized by the American Rose Society and under the supervision of the Portland Park Bureau, needed to double the planting-space in order to care for the new roses received during the fall and winter of 1928–29. World-known rose-growers sent their newest creations from Holland, France, Czecho-Slovakia, Roumania, England, Australia, Spain, Ireland, Scotland, Luxembourg, and Germany, and from the states of California, Indiana, New York, Connecticut, New Jersey, Maryland, Pennsylvania, Florida, Washington, and Oregon.

Due to unusually heavy rains in June and unprecedented drought during the entire summer and fall, the season of 1929 was not favorable to the development of the highest class of roses. Nevertheless, with extra care and culture, the Test-Gardens gave both quality and quantity of bloom, but suffered somewhat from mildew, which has never before been so prevalent in the Pacific Northwest.

Special care is taken in the selection of the Board of Judges as to fitness for the important work to be done, as well as to having commercial, professional, and amateur rose interests represented on the Board, thus assuring intelligent and fair consideration for the roses judged.

No awards or final reports of the result of the testing are made until after two full seasons of treatment and growth.

The awards for 1929 were made by the judges as follows:

GOLD MEDALS: No. 300, Cl.HT., entered by Emmanuel Buatois, Dijon, France. (This rose has been named "Reveil Dijonnais.") Julien Potin, HT., entered by Henry A. Dreer, hiladelphia, Pa.

SILVER MEDALS: Cherub, Mult., entered by Hazlewood Bros., Epping, New South Wales, Australia; Mrs. E. Claxton, HT., entered by Frank Cant & Co., Colchester, England.

Bronze Medals: Lustre, HT., entered by Amling Bros., Santa Ana, Calif.; Leni Neuss, HT., entered by M. Leenders & Co., Steyl-Tegelen, Holland.

Certificates of Merit: Junior Van Fleet, HW., entered by J. A. Kemp, Little Silver, N. J.; Dr. Augustin Wibbelt, HT., entered by M. Leenders & Co., Steyl-Tegelen, Holland; Jack Hobbs, D. Poly., by D. Prior & Son, Colchester, England.

Reveil Dijonnais is a pillar rose entered by Emmanuel Buatois, and is the product of Eugen Fürst × Constance. It has attractive foliage which had some mildew about midseason but it yielded to treatment. The bloom is 5 inches in diameter, with thirteen petals, the high stamen center being surrounded with a Constance-yellow zone about ¾ inch in diameter, which, in turn, is surrounded by a deep, Eugen Fürst-crimson zone extending to the tips of the petals.

Some very promising roses happened not to be in condition for judging and were held over by the judges. The contest will be keen in 1930, for many new roses will be in competition.

The Gardens are located in Washington Park* and are carefully protected by a high iron fence enclosure, with locked gates. The soil is a rich clay, making an ideal base for the work.

The Testing-Grounds are divided into three groups of beds and six bush roses of each name or number are sent by the grower, as two bushes are planted in each of the three groups of beds. Only two climbing or pillar roses, of each name or number, are sent, as these are tested under a different plan.

Group I. The roses and ground in this group are sprayed and otherwise treated for insects and other pests, to prevent and control disease, but no ground-treatment is given for disease as is given in Group II. Full pruning, disbudding, intensive cultivation, and feeding are given the second season after planting. The purpose is to produce high-class bloom and foliage.

Group II. The roses in this group are sprayed and otherwise treated for insects and other pests, but not for disease, such as mildew, black-spot, etc., but ground-feeding of chemicals for prevention, control, and cure of disease is carefully and methodically tested. Whether ground-medication will prevent, limit,

*The enclosure and gate-locking are necessary protections in this important test work. The distinction should be noted between a public rose *show* garden, preferably always open, and these highly competitive tests of new roses, sometimes not yet named.—Editor.

or control disease is a moot question, but the theory is to receive persistent and scientific testing in the International Rose Test-Gardens. Reports of the value of this treatment will be made as soon as results are definitely known.

Group III. The roses in this group are sprayed and otherwise treated for insects and other pests, but no spraying, ground-treatment, or other treatment is given for disease. No disbudding or summer pruning is done, and spring pruning is limited to cutting out weak and dead growth and some shortening of extra length of stems. In fact, save the spraying for aphis and other insect pests, and hand-picking of leaf-roller, etc., the roses in this group are tested as to, *First:* Disease susceptibility and disease tendency, especially mildew and black-spot diathesis. *Second:* The natural development, characteristics and quality of blooms without intensive cultivation. *Third:* The natural growth of bush and foliage as to habit, form, color, and vigor. In short, the purpose of Group III is to test out the natural characteristics of the roses as to growth, peculiarities, disease-resistance, disease-diathesis, etc.

Special attention is called to the following: Some superior roses do not come to their best under even a two-season testing. Roses of special promise, but which do not receive a medal at the end of the two-season testing period, will be held for two years longer and then rejudged. A special award—named in honor of the founder of the International Rose Test-Garden —the "Jesse A. Currey Medal," will be awarded roses in this class which qualify under the following conditions:

*First:* Constancy of form, color, and fragrance of bloom.

*Second:* Freeness and continuity of blooming.

*Third:* Quality, vigor, attractiveness and healthiness of canes and foliage.

*Fourth:* Ability to withstand extremes of heat, cold, drought, and wet weather.

It will be noticed that neither novelty, petalage, nor size enter in this class, but other very important features do. This medal will be a coveted award as it will indicate a high-class, general-purpose rose, worthy to be grown in every garden, small or large, amateur or professional, and will rank with the Gold Medal class.

# Bagatelle and Pedralbes

By WALTER E. CLARK, Past President American Rose Society, Charleston, W. Va.

EDITOR'S NOTE.—Because the awards made at Bagatelle Rose Contest constitute probably the highest rose honors in the world, the Annual has welcomed the fullest account of this great judging event. From the first issue, in 1916, the trials have been reported, sometimes by the Bagatelle authority, Mons. J. C. N. Forestier, and several times by our long-time friend, Mons. J. Dupeyrat. Frequently, some of our officers have represented the American Rose Society in the judging. In 1929, we were so fortunate as to have our President of that year "on the job" in Paris, and his report follows, together with an account of the most important Spanish event at Barcelona.

IN THE late spring of 1929 I had the pleasure and honor, as the President of the American Rose Society, of visiting the great exhibitions of growing roses at Barcelona and Paris, and acting as a member of the International Jury of Award at each place.

Our members should be familiar with the annual International Contest of New Roses which has been held since 1907 in Bagatelle garden, a part of the ancient and beautiful Bois de Boulogne, near Paris. Many of them learned fully about it for the first time from the excellent article in the 1929 Annual by J. H. Nicolas.

The exhibition at Bagatelle in 1929 was, I believe, one of the most satisfactory ever held, at least from the standpoint of bloom. The season was unusually late, and the judging did not take place until June 20. The marvelous garden was in its prime; in nearly every rose-bed perfection of bloom was seen. I was conscious of the disadvantage arising from only a limited acquaintance with the French tongue, since all the proceedings of the Jury were conducted in the language of our hosts; but much care and courtesy were shown in providing an interpreter when necessary.

The day of June 20 dawned beautiful, with the moderate warmth of early summer, and promptly at 9 o'clock the Jury began its work of inspecting the growing plants. I was the only American representative, but from the following countries there were from two to six or eight delegates who joined in the judging: Belgium, England, France, Ireland, and the

Netherlands. Each Juror carried a score-sheet and every rose of the two-year planting which seemed to be a fair candidate for honors was marked on the spot. Votes were taken rapidly, by the raising of hands, and the whole process of judging was performed with surprising expedition and, I thought, with much accuracy. In the same way the preliminary judging of one-year roses—that is, those which were planted out in the fall of 1928 or spring of 1929, was carried on.

This part of the task concluded, the Jury repaired to the "Orangerie," where the members were seated about a great table. The superintendent of the garden read a report giving the life history, at Bagatelle, of those roses which had received a high marking. A lively discussion of the chief contesting roses ensued, and finally the result was announced.

The French jurors were in several cases important officers of the French government and of the city of Paris. The maintenance of the gardens, the award of medals and certificates, and all the arrangements for the time-honored contest are provided by the municipality. The rule is to award a gold medal to the rose adjudged most worthy after a trial of two seasons; but it is characteristic of the courtesty of France that, in case the award shall go to a rose of French production, a gold medal shall also be awarded to the best competing rose produced in a foreign country.

The first award in 1929, on the occasion which I am reporting, went to a magnificent yellow Hybrid Tea rose formerly designated merely as No. 1277, but recently named Mrs. Pierre S. du Pont. This rose, although named for an American lady, a trustee of the American Rose Society, was produced by the well-known French amateur, Charles Mallerin. I am not skilled in color description, but this rose is somewhat similar to the well-known Souvenir de Claudius Pernet, only more intensely yellow, and tinted with ochre. Its parentage is not recorded. The foliage is excellent and abundant, and the blooming most prolific, with individual blossoms of large size. It received the unusually high scoring of 9 for the first year and 9½ for the second year.

Outstanding as was the medal-winner, there were two very strong competitors. Many of the jurors favored Federico

Casas, one of the newest productions of the skilled Spanish hybridizer, Pedro Dot. This rose was described on page 229 of our 1929 Annual. It narrowly missed being first choice of the jurors at Bagatelle. Yet second choice and the foreign gold medal, after much careful discussion, were given to No. 4461, produced by M. Leenders & Co., of Holland. After the award the producer complimented a distinguished Frenchman by naming the rose Président Deville. Had Federico Casas maintained the high score given in the 1928 judging, it probably would have been a medal-winner. As it was, the first certificate of merit was awarded to it. The rose Président Deville is a Hybrid Tea of the Mme. Jules Grolez type, with reverse of petals coral-tinted. *Les Amis des Roses* comments: "The bloom is ideal, but the plant seems to lack vigor. May improve with age."

Other roses which received high scoring were Souvenir de Pierre Guillot, Per. (Marc Guillot); La Maréchale Pétain, HT. (Sauvageot), a large and brilliant scarlet; Emily Dodd, HT. (Alex. Dickson & Sons), of the Ophelia type; and Mme. Georges Petit, HT. (Ketten Frères), a more brilliant red than General MacArthur, one of its parents.

A certificate as a climber was awarded to Hiawatha Recurrent (as printed on my score-sheet, although *Les Amis des Roses* gives it "Remontant"). The official reports are that this rose gives repeated bloom throughout the season. It is a product of Hiawatha by Mme. Norbert Levavasseur. The Hybrid Tea, Cécile Walter (Mallerin) might have obtained the highest honor of all if it had been in bloom. It received eight points on past performance—when it gave very large, semi-double blooms, coral with deep copper tints in the center.

A luncheon with a beautiful setting in the park was served immediately after the judging, an event attended by all the jurors, and noted officials of the municipality and the French government.

Before going to Bagatelle, I had taken a part officially in the "Concurso Internacional de Rosas," in the gardens of the Royal Palace of Pedralbes, at Barcelona, Spain. Here, on May 29, Her Majesty, the Queen of Spain, dedicated a new garden wherein an international contest of new roses is to be held

annually, similar to the one that has been held for so many years at Bagatelle. The first judging of roses was in 1929, the specimens being all newly planted.*

In the late autumn, as I have been informed, all jurors whose attendance was possible assembled in the Palace gardens, and judged the roses finally. Three gold medals and three certificates of merit were awarded, this action differing from the Bagatelle rule, where the final judging and award of prizes do not take place until the second season of exhibition.

The Pedralbes rose-garden is laid out in a superbly beautiful spot and is not open to the general public. The roses are cultivated, under the patronage of the King, by the park department of the city of Barcelona, whose accomplished superintendent, Señor Nicolas M. Rubió, a former pupil of Mons J. C. N. Forestier, of France, is the architect who recently redesigned with great skill the whole ancient enclosure of the Palace of Pedralbes.

The judging of new roses at Barcelona is accomplished by permitting the international jurors individually to visit the garden when it suits their convenience to do so during the season of bloom, and then by a general meeting of jurors in the autumn. Each juror who makes his inspection before the final meeting is to leave his report, as I did.

Considering that this is the first year of roses in the contest garden, the showing in late May, when I saw it, was very good. Unfortunately, however, many plants had not had time to attain much growth, and scores of them were not yet in bloom. In all, 92 groups were shown, representing the same number of varieties. Many were in fine bloom and some of the varieties were striking. A few shone out with great excellence, I thought. Among the exhibitors are several well-known hybridizers of the leading rose-producing centers of Europe, but none so far of the United States.

Two of the gold medals annually offered at Barcelona are provided by the King of Spain, the first "for the best foreign rose presented," and the second "for the best Spanish exhibit, if necessary." The third medal is provided by the city of

*A report of the year's experience at Pedralbes, very kindly prepared for us by Señor Rubió, reached the office of the Annual after the pages of 1930 issue were closed and on press. Acknowledgment is here made, regrets expressed, and assurance given that the next Annual will present the report.—EDITOR.

Barcelona for the best rose "of abundant flowering in autumn." The 1929 awards were as follows:

Gold Medal of H. M. the King, to Diane de Broglie (C. Chambard, Lyon, France). The official comment is: "Flowering fully, with beautiful roses, and very healthy foliage."

Gold Medal of H. M. the King, to Duquesa de Peñaranda (P. Dot, Spain), which is noted by the jurors as "A most beautiful flower, healthy plant and foliage."

Gold Medal of the City of Barcelona, to Golden Gleam (Beckwith & Son, Hoddesdon, England): "Flowering very fully in autumn, with beautiful roses."

I have no further description of these new roses, since the Duquesa de Peñaranda had not been planted when I visited the garden in May, and the others were not in bloom. Certificates of merit, according to the final report of the judges lately received, were awarded as follows:

To No. 6166 (Ketten Frères, Luxembourg): "A well-growing shrub and fully flowering."

To Mrs. Pierre S. du Pont (Charles Mallerin, France): "The well-known beautiful rose."

To Elizabeth of York (Dobbie & Co., Edinburgh, Scotland): "Healthy shrub, with very good foliage and charming roses."

If space in the Annual were not so limited I should like to describe my observations in the nursery of Señor Pedro Dot, at San Feliu Llobregat, a few miles from Barcelona. In passing, it must be said that I have never seen a field of more flourishing or more beautiful roses anywhere. They were planted out in the open, like corn or potatoes, and my courteous host, the distinguished hybridizer, told me that no fertilizers were added to the natural elements of the soil! I predict that we shall hear much from this nursery in the next few years.

My intensive rose observations were confined to the places I have described. But in a short tour of western Europe, memorable displays were seen in many private gardens, as well as in public places. Notable indeed were those seen in the Swiss-Italian Lakes region. I wish that all our members might go there in the month of May, or very early in June. Our Secretary's office would gladly furnish an itinerary for this and other rose pilgrimages, I am sure.

# New Australian Roses

By ALISTER CLARK, Glenara, Bulla, Victoria, Australia

EDITOR'S NOTE.—Australia's contribution of new roses adapted to much of the United States is surprisingly large. Further, the work of Mr. Alister Clark, who is entirely free from the limitations of custom or prejudice in his hybridizations, opens up a most hopeful possibility of future rose advance. We can well afford to consider carefully new varieties coming from the same source as Daydream, Scorcher, and similar roses.

Importation from Australia is not easy. In addition to the Federal quarantine requirements, the reversal of seasons must be taken into account. As these words are being written, in early January, our Australian friends are in full tide of their summer. The times of dormancy do not agree with those north of the equator. Yet the Breeze Hill experience has been rather encouraging, for plants shipped from New South Wales early in our spring season came through by mail in about thirty days, and usually start growth here promptly.

Reference to Mr. Knight's interesting article on page 149 will make clear the Australian conditions.

American rose merchants have seemed reluctant to obtain and grow the Australian successes, for some reason not apparent.

HAD I not the volumes of the American Rose Annual to refer to, I could hardly believe that it was only as late as 1924 that the Editor asked for notes on the Gigantea seedlings at Glenara. What numbers of seedlings have been tested here since that date! Yet I find I would not like to alter anything I then wrote.

I realize that I am the spoilt child of the rose societies of Australia, but little thought that the large-hearted rose-growers of America would go on spoiling me as so many have done by their kindly encouragement and the fact that happy homes have been found there for so many Glenara seedlings. The "Finding-List of Breeze Hill" in 1927 contained about twenty, and by now I think the number must be nearly thirty. I hasten, therefore, at short notice, to comply with the Editor's wish for some further notes.

Messrs. Hazlewood Bros., of Epping, New South Wales, sent out last year (1928) Countess of Stradbroke, a climbing Hybrid Tea of fine dark red color that holds well on the plant without bluing and is scented. I have high hopes that this will prove to be a great gain.

Messrs. Hackett & Co., of Adelaide, in 1928 disseminated Edith Clark, a dwarf red Hybrid Tea of great color and freedom, free from bluing. It is a cross of Mme. Abel Chatenay and

a Glenara seedling and was named for my wife. In 1927, they sent out Mrs. Philip Russell, a very dark red of pillar growth, only semi-double but free, a Hadley seedling, liable to black-spot at times but of great color.

Billy Boiler, HT., disseminated by the National Rose Society of Victoria in 1927, is a dazzling pillar rose bred from Black Boy. It is an upright grower, a continuous, free bloomer, with semi-double blooms of loose form, but provides a great splash of color in the garden or as a cut-flower.

In 1929, the season just closing, I sent out eight new roses, two being extra-vigorous climbing varieties that in spring are a mass of flowers and possess splendid foliage. These are Traverser, a pale yellow Gigantea cross, and Refresher, a single white companion to American Pillar, and very distinct.

Joyce Fairey, HT., a brilliant red pillar rose with good foliage, is being sent out by the National Rose Society of Victoria.

The other five are bush roses, continuously in flower, namely:

Peggy Bell, HT., makes a strong bush and the flowers are well held and striking, somewhat the color of Betty Uprichard, but more free and solid; sent out by the National Rose Society of New South Wales in 1929.

Lady Fairbairn, HT., is a beautiful shade of pink on stiff, upright stems. Continuously in flower. It is a cross of Mme. Abel Chatenay and a Glenara seedling. Disseminated by the National Rose Society of New South Wales.

Mrs. Albert Nash, HT., a sweet, slightly incurved, dark red rose on a good bush; free and continuous; liable to black-spot. Sent out by the National Rose Society of Victoria in 1929.

Mary Guthrie, HW., being sent out by S. Brundrett in 1929, is a really beautiful single pink rose of a new tint. It is dwarf, very free, and everblooming; most distinct. A fine bedder.

Busybody, HT., disseminated by Hazlewood Bros. in 1929, is a bush rose of unusual color and freedom, flowering right through the winter. The small blooms are rich chrome and yellow. A fine bedder. The result of a cross of Georges Schwartz and Lena.

Mme. Abel Chatenay is proving a good parent, and so are Comte G. de Rochemur, Scorcher, Kitty Kininmonth, Mrs. R. C. Bell, Mrs. E. Willis, and Hadley.

I cannot but think that *Rosa longicuspis* must prove a fine parent. My seedlings are not yet in flower but promise well in growth and foliage.

I feel sure that Mrs. Erskine Pembroke Thom and Gaiety are going to prove great roses for Australia, and Talisman showed up so well at Messrs. Hazlewood's that I have high hopes of it proving good, even though it has Pernetiana blood.

Dr. E. H. Wilson, of the Arnold Arboretum, kindly sent me *R. stellata myrifica*, and I am working on that extraordinary variety. The great advantage of growing seedling roses is the use one can make of their pollen to produce distinct lines all one's own, and probably best suited to local conditions.

From what I have written, it will be seen that *R. gigantea* does not monopolize my attention when crossing, but I now use many of the seedlings I have obtained from it.

I am writing in early spring, when the beautiful young growth of the rose plants is the most refreshing and hopeful sight in the garden, and could I postpone writing for even two months, I could tell with more confidence the prospect of the 1929 batch of seedlings; but as they all proved themselves worthy at Glenara, I have great hopes that they are going to fill a long-felt want.

Mr. R. Marion Hatton, describing Black Boy as his best climbing rose, and Captain Thomas telling of Kitty Kininmonth as the rose for California gardens, added to the splendid reception given to the Glenara seedlings by Mr. Fred Howard of Los Angeles, and Dr. McFarland's kind encouragement and trouble taken to test out the plants, make me feel glad to be a member of the American Rose Society whose members are so determined to find out the good points of the world's roses.

The American Rose Annual helps us immensely to visualize the great American rose-growers. One almost feels that some of the writers are old friends, their comments on the known roses tell us so much of the character and capabilities of the men, knowing that sound knowledge and words come from the heart full of truth. I look forward to the day when we may meet, and if only it could be at Breeze Hill with Dr. McFarland to show us his treasures, and Mr. E. G. Hill to tell us how General MacArthur originated, what greater pleasure could I have?

# Rose-Growing in Australia

By GEORGE KNIGHT, Homebush, New South Wales, Australia

EDITOR'S NOTE.—What Mr. Knight writes is earnestly commended to the attention of rose friends in the southern states who condemn all roses but the Radiances. Think of Tea roses 9 feet high, in a difficult climate!

THE climatic conditions obtaining in many parts of Australia are so much akin to the climate of the southern United States that the following should be of interest to rose-growers in that zone. Having been actively engaged in rose-growing for thirty-six years, and an importer of new roses from all parts of the world, I have tried out almost all the older and many of the newer roses. Here in Australia it is seldom that a rose suffers any injury from the cold, but in the central districts and sometimes nearer the coast, during the hot, dry summers, many roses, especially those with weak constitutions, are killed outright or are so badly burned that they never fully recover. The stock used here is largely Odorata* and Multiflora, but most roses do best on Odorata, making quicker and stronger growth, and, in general, superior bloom.

The Tea roses do particularly well in most parts of Australia. Mme. Lambard, Marie Van Houtte, and Catherine Mermet live to fifty years and more and make tremendous bushes as high as 9 feet and as much through. Maman Cochet, White Maman Cochet, Dr. Grill, and Mme. Antoine Mari make large bushes 7 to 8 feet high, built in proportion, and cover themselves with bloom. I have seen many of these large specimens, some growing in old, deserted holdings, which have been neither pruned nor cultivated for six or seven years, and yet they are perfect specimens of health and vigor. This raises the question whether Tea roses are pruned too hard in the milder climates.

In my old rose-garden, situated at Homebush, which is a suburb of Sydney and about 14 miles off the eastern coast, the climate is very similar to the milder parts of southern United States. Snow has never fallen here, and no rose, no matter how tender, is ever affected by frost. Our midwinter is June 21. We start pruning about the middle of July and finish by the

*See footnote, page 118.

end of the first week in August. The Hybrid Perpetuals are done first, then the Teas and Hybrid Teas. The flush of bloom comes about October 20, but with very light pruning and systematic treatment, the Teas and Hybrid Teas keep on blooming right through the summer and autumn; in fact, some of them right up to the time of pruning the following year. With careful light pruning many of the more vigorous varieties are grown into very large bushes, or really stately shrubs.

After the pruning is completed, a good dressing of decayed manure is dug in—cow-, horse-, fowl-, or sheep-manure—whichever is available. I make a special point of collecting all succulent green weeds. These are also turned under, as they not only add humus to the soil but help to keep it in a friable condition. The ground is kept well stirred, either by a chip or scratch hoe, to check evaporation. If the spring proves dry, a good watering is occasionally given.

Some of the Teas and Hybrid Teas that were planted over thirty years ago are still at their very best. Radiance, Red Radiance, and Mrs. Charles Bell are the three most useful roses in this climate, and generally keep their health and vigor for about twelve years. They are all grown extensively for the commercial cut-flower trade, and can be seen in many of the public gardens; also grown as hedges. In reds, Etoile de Hollande is quite our best. The color is good, the plant is vigorous and free, with a good stem. Its one fault is that it opens too quickly in the summer months.

Hadley and Sensation have worked their way into second and third place. They both fade and at times come a bad color, but for their other fine qualities this is overlooked. Sensation, where she does well, is really our best dark rose, especially in the warmer months. Lord Charlemont, a very bright and striking color, owing to its habit of dropping foliage and consequent lack of vigor, is fast losing ground. Mrs. Henry Winnett, a splendid grower with shapely bloom and good stem, does fine. Earl Beatty and Charles K. Douglas are both good. The semi-doubles K. of K. and Hawlmark Crimson do well for about six years and then "peter out." Lord Castlereagh, the darkest of the semi-doubles, has done well the two years that it has been here. Chateau de Clos Vougeot is the most striking

of the very dark reds. The climber should be grown as a bush. Zephirine Drouhin does excellently, both in growth and freedom of bloom. The perfume is as good as that of any other rose.

In pinks, Dame Edith Helen has become very popular, with large, rich, clear, evenly shaded pink blooms, beautiful in shape, which retain both form and color very long. It does well on heavy soils, and if it only had the vigor of Radiance we would then have the ideal rose for Australian conditions. Imperial Potentate does well both in growth and freedom of bloom, with good stem and excellent foliage. Empire Queen, a cerise-pink, is a very quick grower, and in the cooler weather the color is most attractive. It really should do well in the southern states.

Rose Marie, with her shapely bloom and reasonably good growth, is grown extensively. Mrs. George Shawyer gives beautiful long buds which keep well. It grows very tall, up to 7 feet, and does well for about ten years. Charles P. Kilham, of an orient shade, is doing fine and it has a lovely color in the late autumn. Mr. P. L. Baudet makes very large bushes, with lots of salmon-pink blooms on very long stems. Ladylove does well but is rather too much like Mme. Butterfly. Mme. Caroline Testout grows into plants seven feet high, built and balanced in proportion, and does well for at least forty years. Mlle. Christine de Noué is another giant grower that is at its best in the winter. I have plants thirty years old that always seem to have blooms on them, and it is an excellent show rose in the colder months. If it is pruned too hard, the blooms split and the color comes very bad. Mrs. Bryce Allan really does well and the perfume is good. Columbia does well in the more favored parts but in others fades badly and has many malformed blooms. Scott's Columbia is an improvement as it does not "burr up" nearly so much.

Sunny South, an Australian rose, is really a very good thing, especially in the milder winters. It is a very robust grower with blooms of a good color. I feel certain that this will be a success in the southern states; it opens quickly in warm weather.

In yellow shades, Roselandia is strong in growth, long in stem, and free in bloom. Souvenir de H. A. Verschuren, a beautiful clear yellow with good foliage, makes a nice plant up to 4 feet high. Richard E. West is a good doer and free

bloomer but opens rather too quickly. Golden Ophelia has beautiful, long, perfect buds of good color, does well for about five years, then goes off. Georges Schwartz is a very beautiful yellow, but the climber should be planted and treated as a dwarf. It can then grow into a good bush. Rev. F. Page-Roberts, although not a big grower, is the best of them all and is extensively grown. Its fine, shapely blooms that last so well make it very popular. Golden Gleam is healthy but not over-big in growth; one of the richest yellows, and a beautiful rose for massing. It should make a wonderful splash of color in the milder districts.

In apricot, Lady Hillingdon is grown the most. It grows very well and blooms most freely in the milder districts, flowering right through the winter. Its one fault is that if not well grown the stems are weak. The plant is still quite good at twenty years. Mrs. Arthur Robert Waddell makes enormous bushes and covers itself with bloom. It also hangs its head but nevertheless is good; does well for twenty-five years. Mrs. Dunlop Best, apricot with coppery shadings, makes large bushes 6 feet through and over. Its one fault is that it opens too quickly. Edith Nellie Perkins is a coppery salmon and orange rose that is doing exceptionally well. Its growth is quick, vigorous, erect, and yet bushy. The bloom is shapely, of good size, borne on long stems. It should do well in all mild districts. Gruss an Coburg is a brilliant coppery pink. Its one fault seems to be that the bloom is a little too flat.

I find that the Pernetianas, taken as a whole (there are a few exceptions), are quite unsuitable to Australian conditions. They are subject to black-spot and die-back, and are at their best for a very short period, while their time of usefulness is by no means lengthy. The best results are to be obtained by growing a bed of one variety. Prune them very lightly, removing only the dead and sickly wood, feed and water them well, and as soon as they begin to go off, throw them out and replant with growing stock. Of course, there are very rich colors among them, but after all, is it worth while playing with poor doers when there are so many vigorous-growing Teas and Hybrid Teas which, with reasonable treatment, can be grown on successfully for many years?

PLATE XIX. ALISTER CLARK, creator of many fine new Australian roses
See page 146

PLATE XX. GLENARA, the home and gardens of Alister Clark, at Bulla, Victoria, Australia

Of new roses imported from abroad and growing here for the first or second season, these appear to be satisfactory:

*Caledonia.* HT. A fine white rose with good perfume.
*Canary.* HT. Golden yellow, flushed cerise, after the style of Shot Silk, but even a better grower.
*Christoph Weigand.* HT. Light pink; fine long bud.
*Fancy.* HT. Medium-size, ochre-yellow and peach shading—very striking.
*Flamingo.* HT. Geranium-red; vigorous and free, but not quite full enough.
*Helen Fox.* HT. Indian-yellow, rayed red; fine long bud.
*Königin Luise.* HT. A good all-round white.
*Mrs. John Bell.* HT. Cardinal-carmine; large and full.
*Perfume.* HT. Fiery crimson; well perfumed; not quite enough petals; very strong grower and free bloomer.
*President Jac. Smits.* HT. Dark red; good grower, but rather too loose.
*Swansdown.* HT. White with good pointed shape; growth really good.

And these three Americans:

*E. G. Hill.* HT. Growth right and immense deep scarlet blooms.
*Joanna Hill.* HT. The color is really good, being a deep yellow.
*Talisman.* HT. Very showy scarlet and gold blooms, so far a little on the small side; grows and blooms well.

Speaking generally of Australian-raised roses, they are not as yet up to the standard of the British and American productions. There are far too many of those semi-climbing, straggly growers which are neither climbers nor bushes, and cannot be grown into shapely plants. There are also far too many semi-doubles and spring bloomers only. The time has now arrived when the rose-growing public demands, and should get roses that are not only vigorous-growing, continuous-blooming, and disease-resistant, but with well-perfumed, lasting, shapely blooms on long stems. At the same time, there are a few good things which can be recommended and which I feel will be well worth growing in the southern states, amongst which are:

*Black Boy.* Cl.HT. Dark crimson blooms of medium size. A vigorous climber which comes into bloom early. It makes a fine splash of color.
*Flying Colours.* H.Gig. Large, single, rich cerise-pink flowers. If grown on a sheltered wall or trellis facing the morning sun, it comes into bloom three weeks before the flush, simply covering itself with bloom and making a glorious sight. It is spring-blooming only, but well worth having.
*Golden Dawn.* HT. Growth reasonable; strong. Large blooms of pale canary-yellow; sometimes deeper in autumn. Buds at times malformed.
*Miss Marion Manifold.* Cl.HT. A large, full-bodied rich crimson. This rose does well all over Australia.
*Sunny South.* HT. The best pink garden rose raised in this country.

# Roses Around the World

IN 1929, the American Rose Society had the good fortune to be represented abroad by its president, whose account of his visit to France and Spain begins on page 141. The Editor's correspondence with rose friends around the world continues to enlarge both in volume and interest. This year, contact was made with rose-lovers in Durban, South Africa, and in Alexandria, Egypt, and although no account of rose-growing in those regions was received for the Annual, we hope sometime to hear from them at greater length.

### BRAZIL

Mrs. Paul Schilling, of Nova Friburgo, who contributed the fine article on "Getting More Out of Our Roses" on page 35, gives us further information concerning rose-behavior in the great southern republic:

I have little to say of my roses this year. The season was unusually wet, my gardener young and inefficient, and without direction for several months. Several roses, planted with the bud flush with the ground, developed wild shoots. These were the newest ones and they did not recover soon enough, after cleaning up, to prove their true value.

After such an altogether trying season, I was interested to see which roses had stood up under the adverse conditions. The old Teas, Souvenir de la Malmaison and Maman Cochet, had flourished like the green bay tree; the climbers Gloire de Dijon and William Allen Richardson, had really shown what they could do. I am coming to the conclusion that the Ophelia type of rose is not well suited to this climate. The bushes never become robust. I have Ophelia, Mme. Butterfly, Mme. Segond Weber, and Edith Part, which stay about 10 inches high, whereas Betty and Mme. Jules Bouché, planted at the same time, are now 3 feet high.

I am becoming more and more convinced that mildew is due to climatic extremes and sudden drops or rises in temperature. The first fortnight in October (corresponding to May in the United States) was hotter and sunnier for the time of year than ever known in this neighborhood, resulting in a riot of bloom, but mildew on all roses except Marie Van Houtte, whose immunity I was inclined to lay to great vigor and a sheltered position. My last bad attack of mildew was due to heavy rains followed by a 20-degree drop in temperature. Would not this indicate that not quality of climate but extremes of condition are responsible? If I had discarded from my garden all the roses "subject to mildew," I should have only the one left! In this connection, I noticed one contributor speaks of never cutting roses with mildewed foliage. I cut them and trim off the foliage, combining with them a spray of foliage from Lady Hillingdon, Marie Van Houtte, or Perle des Jardins, which are less liable to mildew. Is this not a permissible dissimulation?

This year the roses were devastated by a pest which I hope is unknown in the United States, the dog-bee. It is a social bee which builds a huge colony about the trunk of a forest tree, making the nests very hard to find. These bees cut the bud off flat or perforate it near the base to get the gummy sweet. My new gardener destroyed six colonies, so I hope to have surcease of them.

I am very enthusiastic about a rose new to my garden this year, called Decorator.* It is listed by our Rio florist as "Hobbies, 1914," although I cannot find it in the book of rose names published by the Rose Society, but Countess Senni mentions it in one of her letters. It is a semi-climbing rose with long-pointed buds of rich cream-yellow, striped with bright red, opening to a semi-double flower of cream, buff, or pure white, sometimes one, sometimes the other; the petals sometimes recurved and always most gracefully arranged around a large bunch of yellow stamens. It is extremely prolific, always in bloom, makes a good cut-flower for low bowls, and always attracts much attention in the garden, having an unusually decorative effect.

### ENGLAND

Mr. Courtney Page, Hon. Secretary of the National Rose Society, kindly continues his annual discussion of the new British roses, with notices of the awards given by the Society. Mr. Page's report is always most important because it foreshadows the appearance of the roses on this side, giving us valuable hints as to what to expect:

The year 1929 was exceptional and demonstrated once more the hardiness of the rose. The weather at the beginning was very severe, 40 degrees of frost being registered in many parts of the country. This cold spell was followed by a long drought. In my own particular neighborhood we recorded only 4¼ inches of rain from March 1 to September 1, the worst drought that can ever be remembered.

However, in spite of all drawbacks, I do not think we can call the year 1929 a bad rose season, as the gardens were a blaze of color throughout the summer. The exhibits at the shows were not quite of such good quality as in previous years, but were very plentiful.

The autumn blooms showed the most signs of damage, being of weak constitution, undoubtedly due to lack of moisture. Most of the plants had stopped growing by the middle of September, but this was all to the good, as it enabled the wood to ripen off thoroughly, and we are looking forward to a fine season next year.

#### Awarded Gold Medals by the National Rose Society

*Elizabeth Arden.* HT. (George Prince.) A beautifully shaped rose, just small enough to prevent it being labeled an exhibition variety, and delightfully fragrant. The blooms are a lovely shape, with good texture of petal, and the color is white, with perhaps a faint suggestion of lemon at the base of the petals. It should prove one of the most vigorous and free-blooming white varieties that we have. In commerce.

*Aureate.* HT. (A. Dickson & Sons.) A decorative garden rose of great charm that was exceedingly well staged and attracted a deal of attention. It is one of

*Our record of this rose is: Decorator, HT. (Hobbies, 1913.) Bud vivid crimson, striped yellow, flowers paler, borne in clusters, very vigorous grower.—Editor.

those deep yellow roses that we all want, and if only it will live up to the reputation of the plant exhibited, then we have an ideal bedding rose. The blooms are not too large, are of good shape, and freely produced, and delightfully fragrant. Its foliage is dark green, free of mildew.

*Mrs. Sam McGredy.* HT. (S. McGredy & Son.) A fine, well-shaped rose of a somewhat difficult color to describe—orange-red, shaded apricot, reverse of petals red. The blooms are large, of good shape, produced on long stems, and moderately fragrant. It is a rather vigorous grower with dark red foliage. A good bedding variety. In commerce.

*Portadown.* HT. (S. McGredy & Son.) A rich velvety red rose, with good stiff petals and well-shaped blooms having high-pointed centers. Its habit of growth is moderately vigorous and free. Foliage light olive-green. Should make a fine bedding rose and be planted closely together. In commerce.

*James Rea.* HT. (S. McGredy & Son.) An enormous rose of a rich deep glowing rose-color with large, stiff petals. The fragrant blooms are perfectly formed, with high-pointed center, opening full. It is a moderately vigorous and free grower with dark green foliage. Should prove to be a good exhibition and garden variety.

*Gladys Benskin.* HT. (A. Dickson & Sons.) This rose, one of the best of the year's novelties, is a very pleasing warm pink, shaded yellow and old-gold. The blooms are fragrant, well-formed, and lasting, but it was noticed that the color paled slightly with age. Its habit of growth is vigorous and the foliage on the plant shown was free of mildew. Should prove to be a rose good for both garden and exhibition purposes. In commerce.

### Awarded Certificates of Merit

*Julien Potin.* HT. (Pernet-Ducher.) Exhibited by G. Beckwith & Son. This is an exceedingly pretty rose. The bright yellow, fragrant blooms, which are carried on long stems, are well formed, with high-pointed centers. Under glass they open cupped, but outdoors a little ragged. The habit of growth is vigorous. Foliage dark olive-green, with younger growths red, and inclined to mildew at times. On maiden plants the blooms are inclined to pale, but on cutbacks it keeps its color well. A first-rate bedding variety. In commerce.

*Trigo.* HT. (A Dickson & Sons.) A garden variety of some quality which will appeal to all. Its shapely, fragrant blooms, carried erect on long stems, are double and of a rich yellow, shaded salmon. The buds seem to be shaded with purple which disappears as the blooms expand. Its habit of growth is vigorous and branching, and it is free of mildew.

*Peter Pan.* HT. (Wheatcroft Bros.) To me, this variety is none other than Emma Wright. It was staged as a sport from that variety, and some blooms may have one or two extra petals, but the foliage and "that-won't-grow-up" habit of growth is identical. The color is not so pronounced and, personally, I prefer the older variety.

*Crimson Glow.* HW. (Chaplin Bros.) The award was probably given to this variety for its color, which is fitly described by its name, with the exception that it has a small white line at the base of the petals. Its blooms, which are carried in large clusters, are semi-double. The plant is very vigorous and will be a welcome addition to the climbers that have already been sent out by this firm.

*Mrs. H. G. Johnstone.* HT. (Bees Ltd.) A first-rate variety. The blooms, which are carried erect, are a good shape, with strong petals and of a rich pink color. Habit of growth is strong and robust. The plant was free of mildew.

*Molly Darragh.* HT. (S. McGredy & Son.) A big, well-formed, fragrant rose with large, broad, bright rose petals, shaded creamy yellow at base. The habit

of the plant exhibited was vigorous and branching. It is a pretty bedding variety that will probably receive a higher award.

*Mrs. C. Areling.* HT. (Bees Ltd.) A semi-double, fragrant, orange-scarlet variety, shaded golden yellow at the base of petals. The very prominent anthers are inclined to become black with age, but the blooms keep their color to the end. Foliage dark green. Growth upright and strong. Would make a pretty bedding variety.

*Lieut.-Col. Fairrie.* HT. (Bees Ltd.) A very pretty pale cream rose, flushed apricot and orange. Its blooms are well formed, fragrant, and carried on long, stiff stems. The plant exhibited was strong and vigorous. Foliage light green, free of mildew. Should be a good bedding variety.

*Leslie Dudley.* HT. (S. McGredy & Son.) A fine, lasting, warm carmine-pink rose, shaded orange. Its perfectly shaped, high-pointed blooms are full, but open freely and are delightfully fragrant. The foliage is a dark olive-green, free of mildew, while the plant exhibited was of very vigorous growth.

*Caledonia.* HT. (Dobbie & Co.) A large, paper-white rose, with just a slight tinge of lemon. The blooms are of fairly good shape, with high-pointed center, opening cupped with rather soft petals, and have little fragrance. Its habit of growth is strong and upright and the foliage is light green, slightly inclined to mildew. Will be useful for garden purposes. In commerce.

*Senorita d'Alvarez.* HT. (B. R. Cant & Sons.) A large, single-flowering variety of bright satin-pink color. Its yellow stamens are very prominent and make the center of the bloom appear to be surrounded with a golden yellow zone. The plant exhibited was of vigorous and free habit. Its blooms reminded one of Isobel, and it will remain to be seen if this variety is an improvement.

*Lucie Marie.* HT. (A. Dickson & Sons.) A very pretty rose. The blooms, which are a good shape, are very variable in color, ranging from bright yellow to orange, with the tips of the petals lightly tinted with pale pink, and are slightly fragrant. The plant exhibited showed a fairly vigorous habit, while the dark, leathery foliage was quite free of mildew. An interesting bedding rose.

*W. E. Chaplin.* HT. (Chaplin Bros.) A very fine deep crimson variety, shaded rose. Its blooms are a good shape, with nice pointed center, opening full. The habit of growth is vigorous, and the foliage light green, fairly free of mildew. In my garden this rose has been very fine, especially in the autumn. It is fragrant and large enough, at times, for exhibition. Should prove an ideal bedding variety. In commerce.*

*Tom Barr.* HT. (S. McGredy & Son.) A variable colored rose—apricot, shaded carmine. The sweetly scented blooms are of medium size, well formed, and open double. A free, vigorous grower, with bright shiny green foliage, free of mildew. A promising garden variety.

*Kathleen King.* HT. (G. Marriott.) Although this rose was stated to be a Hybrid Tea, it appeared to me to suggest more of the Hybrid Perpetual habit. Its blooms are large, well-formed, with high-pointed center, carmine-pink in color, and very sweetly scented. The habit of growth is vigorous with plenty of foliage. Will be a useful garden rose.

*James Gibson.* HT. (S. McGredy & Son.) This is a bold, full, fragrant rose of good shape. In color it is rich velvety crimson which is a little inclined to fade as the blooms age. The growth is moderately vigorous and branching, while the plant exhibited was free of mildew. Its free-flowering habit will make it a good garden variety, but, if disbudded, it will be dear to the hearts of those who love the large specimen bloom.

*See Wilhelm Kordes' remarks about this rose on page 163.—Editor.

*Golden Dawn.* HT. (W. Grant, New South Wales.) Exhibited by D. Prior & Sons. This is a rose of Australian origin. The color is a pale yellow, flushed rose, and the blooms are a good shape, with broad, recurving petals, opening full, and delightfully fragrant. The plant exhibited was of a very vigorous growth, and the foliage dark green, fairly free of mildew. Will be a good all-round variety.

*D. T. Poulsen.* H.Poly. (D. T. Poulsen.) Exhibited by Wood & Ingram. This is a semi-double Hybrid Polyantha rose, with light crimson blooms from 2 to 3 inches across. Its growth is fairly vigorous. Foliage light green. Will be useful for bedding and growing in pots under glass. It is more of a Hybrid Tea than a Polyantha.

### FRANCE

We are indebted to our good friend and fellow Trustee Nicolas, who is also Vice-President of the Société Francaise des Rosiéristes, for the following digest of his correspondence with rosarians in France during the past year.

Monsieur Charles Mallerin, Varces (Isère), whose introduction as one of the foremost French hybridizers is not necessary, originated the idea of a *national* contest, limited to French roses only since Bagatelle filled international needs. The idea first took form during my visit to Lyons in 1925, became a possibility when I was there in 1928, and an accomplished fact in 1929. Since Lyons is the center of novelty roses in France, it was natural that the city administration should see the importance of the movement and give it unreserved support. Mayor Edouard Herriot, himself a rose-lover, endorsed the idea, eased many difficulties, and made possible the allocation of a plot in the historical "Parc de la Tête d'Or," a most beautiful site at the junction of the Rhône and Saône rivers. The general scheme is modeled after Bagatelle, with some changes in the rules as learned from experience with that institution. The official name is *Concours National de la Plus Belle Rose de France* (national contest of the most beautiful French rose) and is exclusively reserved to hybridizers of France and her colonies.*

The awards will be a gold medal offered by the city of Lyons and named "The most beautiful rose of France"; a second medal of the French Rose Society.

Any hybridizer who receives medals three consecutive years will be disqualified for medals for the next three years, during which period he may enter his novelties "not in competition," and if these are worthy of gold medals, they will receive a "special mention" which will have the same value commercially. After three years, the same hybridizer may again compete.

The wish has been expressed by the board of the French Rose Society that varieties which receive medals or special mention should be the only ones disseminated, to overcome crowding catalogues with mediocrities.

The winter of 1928-29 was of unprecedented severity throughout most of Europe and afforded interesting observations. Correspondence from Francis

*The Editor was reminded of the solidarity of rose-lovers the world over when he received a communication from a Harrisburg friend who, with a party of some thirty tourists, had reached Orléans in the course of their trip through France. They were being officially welcomed, when the Mayor of Orléans inquired whether anyone in the party was from Harrisburg. Mr. Montgomery admitted the city of his residence, whereupon he was asked whether he knew Mr. McFarland, of the Rose Annual. Admitting acquaintance, Mr. Montgomery received special courtesies, including the signing of a card by the Mayor, Mons. E. Turbat, the famous nurseryman and rosarian, who proved to be a long-time member and correspondent of the American Rose Society.

Gillot, Joseph Sauvageot, and Colonel Meyer, noted rosarians of the Jura Mountain region, where the winters are considered the most severe in France, brought out the following facts:

1. Pernetianas (Souvenir de Claudius Pernet, Mme. Edouard Herriot, and others were named) showed more resistance than Hybrid Teas and several Hybrid Perpetuals, Frau Karl Druschki being killed to the ground. Hardiness of the Pernetianas is perhaps explained by the fact that Austrian Briers were the only species that survived unscathed when even the Caninas were totally destroyed. Of course, as they do not have black-spot in that country, Pernetianas were healthy and normally mature.

2. Many hardy climbers and Rugosa hybrids were killed or partially killed, the *old* wood dying while *young* wood on the same plants came out undamaged. As Col. Meyer puts it, "Youth stood while old age succumbed." Sauvageot recites that hardy climbers in ground heavily mulched with litter lived, and the same varieties died where frost was permitted to reach below root-depth. Gillot tells me that he did not have time to get his whole field-crop into frames (his usual method of winter storage), and was fearful of the loss. But the loss in the undisturbed field was far less than in the frames. He attributes this to the fact that in the field the roots were snug and tight in the ground, while in the frames there were air-pockets among them. This, he says, should not adversely affect fall planting, since when planting in the fall, the roots should first be puddled, the ground heavily tramped and *watered*, to exclude all possible air from around the roots.

### GERMANY

From Germany comes the following statement of progress in that country by the Editor of *Rosen-Zeitung*, the publication of *Der Verein Deutscher Rosenfreunde*, indicating that a real forward step has been taken in the appraisal of novelties in that country: Prof. E. Gnau, of Sangerhausen, writes:

In the practice of a hobby which is counted among the noblest sources of health and knowledge, there exist for rose-lovers several discomforting aspects which are regarded lightly only by those admirers of roses who do not get the full measure of joy out of them. For one of these, at least, we are trying to provide a remedy in Germany.

There is, for example, an over-production in roses, as in many other industries, especially an over-production of varieties which afterward do not make good. The *Verein Deutscher Rosenfreunde*, whose headquarters is in Sangerhausen, where the Rosarium of the Society is also located, during its fifty years of existence, has often tried to enlighten the public, through a testing committee, concerning the merits and shortcomings of novelties offered.

For some years now, the National Association for German Horticulture has taken it in hand to award Certificates of Merit for flower novelties. In order to make proper tests, suitable equipment and testing-grounds are needed, and for this purpose the above named Society, more than two years ago, offered its Rosarium where, with resources of 250,000 roses in 8000 varieties, material for comparison is at hand, as perhaps nowhere else in the world. Also, here are hundreds of wild species roses planted in a systematic and artistic arrangement.

Now the *Reichsverband* (The National Association), after thorough inspection of the Rosarium, has accepted the offer. An agreement has been reached to test all novelties according to a practical testing scheme which was brought

before the great Rose Conference last year at München-Gladbach by Wilhelm Kordes, Jr., of Sparrieshoop. His plan was approved and accepted, with very few alterations, and has now been recognized by the National Society, as was announced in the *Rosen-Zeitung*.

This year, also, during the Annual General Meeting in Coburg, on July 28, the matter came before the house again, and it seems likely that the testing will be begun upon a number of novelties which have been awaiting judging in the Rosarium for some time.

Rose-lovers will also find other moments of discomfort, for instance, in contemplating nomenclature and color descriptions. Here, too, after years of untiring effort by the Society of German Rose-Lovers, remedies seem to be on the way. We hope to be able to report next year that the goal has been reached.

In the great Sangerhausen Rosarium everything is shipshape for the coming labors. Only one thing is still missing, namely, adequate housing for the administration work and for materials.

Just as these pages go to press there arrived the subjoined significant comment on long names from Professor Gnau:

Sangerhausen, *January 14, 1930*

*Dear Mr. McFarland*: The officers of our Congress in Coburg and of our Rose Society are obliged and grateful to you for your kind felicitations to our Rose-Days. We were sorry to see neither you nor any of your friends.

Your suggestion to coöperate with the American Rose Society in respect to the registration of rose names concerns a matter which we have at heart. You can read in the *Rosen-Zeitung*, No. 4, page 80, which I send you under separate cover, that we also believe that a rose is seriously handicapped when given a complicated or uneuphonious name. For example, "Mme. Soledad de Ampuera de Leguizamon," a new Rose of the year 1928.

The names Radiance, Talisman, etc., are characteristic names, and Hiawatha, Ophelia, etc., are names of the world literature. I am glad to work together with you in all respects in the matter of the rose and in extending its gentle sway. Yours truly,

Prof. E. Gnau, Hon. Secretary of the German Rose Society

Dr. H. Von Rathlef's splendid paper on planting roses to show their genealogical connection was of such importance as to justify separate treatment on page 54. To conclude this remarkable collection of material from Germany, we have Wilhelm Kordes' always welcome notes on the new roses as he sees them. His point of view is at all times refreshing, unclouded by prejudice and his expression candid and forceful.

The past season was favorable only to big and very full roses. The semi-double and single roses had a hard time of it, owing to an exceptionally dry and hot summer. Last winter was so cold and long that it broke records of more than 100 years all over Germany. Uncountable roses were killed, and the reason is even now further from exact knowledge than ever before. My opinion is that the roses which grew late, without ripening off, were killed, while others, having no young shoots on the plants, were not hurt at all. Climbing roses were, with few exceptions, killed outright. Others, especially varieties known to be frost-hardy, such as Venusta Pendula, Mme. Sancy de Parabère, Lady Curzon,

*Rosa Andersoni*, etc., were not hurt at all. On top of this extreme cold came steady sunshine and heat for weeks without a cool or wet spell. I am afraid that another winter so cold will kill nearly all the standard roses that have survived, and also the rest of the less hardy climbing roses.

The buds in the fields were not hurt, although in some places the roots of the briars were badly damaged, but the rose somehow must have tremendous powers to live, for even those briars managed to grow. Of course, such fields did not produce good plants, but still the roses lived and bloomed. Spring was very late, and the young shoots had to stand a cold spell in May. However, no fungous diseases developed, and when the warm summer came, the roses did well. Spring was cold and dry; the snow of the last winter did not go into the soil because it was frozen too deep, and the water ran away over the frozen ground. So we came into the dry summer without a supply of water underground.

Of the newer sorts, very few are of real merit. *Fontanelle* has been splendid. *Rapture* also is a good improvement on Mme. Butterfly. *Rose Hill*, so fine indoors, is a disappointment in the open. *Briarcliff* and *August Noack* are much finer. *Theresa Morley* is not to my taste; I like *Imperial Potentate* better. *Florex* has been grand. *Talisman* will be a fine rose, not only on account of the color, but also for its tremendous growth, in which it here ranks with Radiance.

Of the English sorts, *Margaret McGredy* is a fine garden rose. Its copper-red color is quite unusual, and it is also a very good grower, thickly covered with healthy foliage. *Abol* is not better than White Ophelia. *Bianca* is not a good grower nor of a clear color. *Edith Nellie Perkins* is too thin and fades quickly. *Advocate* hangs about. *Cherry* leaves me cold. *Diana Cant* is too thin and fleeting. *Dr. Herbert Hawkesworth* has a weak neck. *Frank Neave* is one of a dozen not very distinct roses in that color. *Hilda* has a good color but it was too full, even in this summer; indoors, in a coldhouse, it brings marvelous blooms. *Ivanhoe* is a poor plant and bloom; Hawlmark Crimson is all we need in this color and thin-petaled type.

*James Gibson* is a fine rose, quick-breaking, with a fine upright growth, a well-carried bloom, and a fine, glistening color—deep scarlet with some crimson, and it does not easily blue. Its foliage is free from fungous diseases. *J. C. Thornton* is a rose of the Richmond type, but with a striking color—a true scarlet that does not "blue"—and the blooms may come a wonderful shape, although the neck is a little weak. A fine decorative sort. *Lady Forteviot* is a little thin, but brings large, marvelous blooms of a most intense golden yellow. It is a rose for the amateur as it recalls, in an improved way, the old Duchess of Wellington. *Lily Kemp* is very fleeting and really not up to standard this summer. *Margaret Spaull* has too many colors and not enough of any. We can do without it. *May Wettern* has colors much like Radiance, without the brilliance of that old favorite. We can do without it. *Mrs. Clement Yatman* sometimes is a gorgeous crimson flower but, as a rule, produces a malformed bud and bloom.

*Mrs. E. Claxton* is a fine semi-climbing Hybrid Tea. It will bloom more freely than climbing sports do, as a rule, and it carries very large, well-built flowers in the Mme. Abel Chatenay colors. *Mrs. S. Paton*, a fine rose for the amateur, is much the same shade as Charles P. Kilham, but darker and keeps its color for a long time. The plant grows well and has splendid, luxuriant foliage that has been healthy here. Its bud is of ideal form and the flower is large and full. *Mrs. W. E. Nickerson* is too thin; also, I do not like these mixed-up colors. *Pink Hadley* has merits only as a garden rose. The color is well kept —a bicolor pink—but the best of this rose is its delightful scent. It is of no use indoors as the blooms are very small under glass. *Portadown* has a very large

flower of a semi-double type. It is very free, but the color sometimes "blues" quickly. The color is lighter than that of Hawlmark Crimson; otherwise the rose is of that type. It is a fine decorative sort as the blooms will keep well when cut. *Rose Berkeley* has a weak neck; Mrs. S. Paton and Charles P. Kilham are much better in that range of colors. *Trilby* is too full; otherwise nothing new. *William E. Nickerson* is good, of a color much in the way of that old Mrs. Charles E. Russell, but more glowing. The bloom is not too full, well carried, good scented, and freely produced. I like it, especially as the plant is of ideal habit and health. *Souvenir de Nungesser* is much the same color, but the plant is too thin and it should be replaced by William E. Nickerson.

Of the French sorts, *Julien Potin* liked the hot summer. This rose is good, but has some faults that must be reckoned with in its culture. It produces some of the "bullheads," so well known from Souvenir de Claudius Pernet, and these must be quickly disbudded, so that the new break may bring a better bloom. Also, the old blooms must be taken off early, otherwise the plant gets too hard and takes a long time to break again. A good bloom of it is a sensation, but the yellow is not so hard or deep as that of Souvenir de Claudius Pernet. The growth is strong but a little thin, and the plant easily becomes top-heavy. Indoors, doubtless, it will prove to be a most productive and long-stalked yellow rose.

*Andrée Roux* is useless; *La Mie au Roy*, "bullheaded," hardly opening indoors. *Mme. la Générale Ardouin* is too colorless; that long-forgotten Admiration was even better. *Souvenir de Charles Gouverneur* is of the same type. We can do well without it. *Helen Fox* is a good grower, but the bloom has not enough petals. We are getting too many yellow roses that have but half a dozen petals or a few more. Another rose in this group is *Royal Scot*, a most fascinating color, but that is all. If the blooms stood in trusses, and came again, as with the Polyanthas, we should be enthusiastic over such a rose—but so, it is only an empty gesture.

Of the Dutch roses which have come under observation, I like *J. Otto Thilow* because it has a bold bloom on a strong, healthy plant; the color is a deep pink. *Frank Reader* is neither yellow nor white—no use; *Souvenir de H. A. Verschuren* is ever so much better. *President Jac. Smits* is of the K. of K. type, no use for Germany. *Leni Neuss* has a bold bloom on a much too weak neck; *Mevrouw Dr. L. Crobach* is too thin and soon spent; *Baronesse H. von Geyr* is no improvement on older sorts of this type and color. *Europa*, a most changeable sport of Columbia, is sometimes scarlet but more often of common Columbia color. It will soon be forgotten. *Nuntius Pacelli* may be good as a garden rose, though I like the form of Westfield Star better. It is a good grower, healthy, producing pure, sulphur-white blooms freely.

Of the new German roses, *Gruss an Coburg* is good for moist climates; in dry seasons the blooms will be too small. It is a bicolor—inside deep yellow, outside of petals salmon-red, and a very strong grower. *August Noack* made good as a red, well-formed sport of Columbia. It is now grown extensively under glass here; in fact, it will soon be the only Columbia type grown indoors in Germany, as the old Columbia is too light for the German markets.

Of the new Polyanthas, *Goldlachs* and *Orange Perfection*, I must say that so far nobody has been able to say which is which or to detect a difference. Both are not much good for the garden as the color soon turns blue in the sun. *Direktor Rebhuhn* stood the heat and dry weather well, the large blooms holding their color until the petals dropped. The buds are orange and the open blooms show a deepening salmon-red that becomes more and more intense as the bloom expands. It is very large and full, but flat. The plant is strong and robust and

the foliage glossy and healthy. I consider this rose a great improvement on Louise Catherine Breslau.

*Erik Hjelm* seems to be even as strong a grower as Radiance, but with very large, full blooms, like Mrs. John Laing but of a better color. Its true self pink is non-bluing. The blooms get ever more beautiful as they expand. This rose should be good for the garden and for cutting; the plants and foliage are healthy. Both sorts stood the last winter without protection. *Auguste Kordes* is a climbing sport of Lafayette. It will be much wanted, especially as it will bloom again in late summer. This sort also proved fairly hardy last winter. A good bicolor pink is *Hermann Lindecke*, a sport of General-Superior Arnold Janssen. It has the same color as La France at its best, and is a strong healthy plant besides. I reckon it will be much planted, as are the other Janssen sports, because they grow to satisfaction even in very smoky cities.

In concluding, I draw attention to two first-rate new English sorts: *W. E. Chaplin* is a crimson with wonderfully perfect high-centered blooms. The plant is a good upright grower and quite healthy. I predict enormous sales for this rose, as it will be equally good in the open and indoors. I have had it under observation for two years and am simply enthusiastic over it. The other is *Chaplin's Pink Climber*, a very large-flowered, free-blooming variety at the same time. It will be largely planted. Of the everblooming type, the new *Robin Hood* is fine. It is always covered with light red blooms—a color so lacking in the everblooming Multifloras of semi-climbing habit.

We have tried a good many more sorts, but the outcome of all our trouble and hope was very, very little real good. Will it ever be different? New roses are becoming the laughing-stock of the whole nursery trade, and I'm afraid a man who keeps on buying all that are called new roses may soon be put in charge of a guardian for wasting his money.

### SPAIN

Additional information concerning the Contest of New Roses at Pedralbes, Barcelona, is provided by Pedro Dot, of San Feliu de Llobregat, in a letter translated for us by J. H. Nicolas. The picture facing page 25 gives us the first glimpse we have had of Señor Dot, and in this case he almost disappointed us by disappearing behind the statuary.

The first year of this contest has been a real success considering that the invitations for plants were sent out very late. In spite of that, we received 92 varieties, some of which were already in commerce. From now on, only varieties not yet in commerce will be accepted.

Many shipments arrived after growth had started, but most plants did well and were in the best of condition in July and August. Then a disease (so far unknown here and which probably is your well-known "friend," black-spot) appeared and caused deplorable damage to some varieties. Quick action by the management stopped its progress, and some varieties which had resisted the disease were in splendid vegetation and full of blooms in October and November, among which were *No. 6108* and *No. 6166* of Ketten Bros., *Leni Neuss, Caledonia, Elizabeth of York, Amateur E. Biron, Diane de Broglie, Climbing Odette Foussier, Polly, Mrs. Pierre S. du Pont, Ami Quinard, Gruss an Coburg, Golden Gleam, Li Burés, Federico Casas, Paloma Falcó,* and *Duchesse de Penaranda.* Out of bloom, but in splendid vegetation were: *Mercedes Gallard,*

*Eddie Mussolini, No. 24-3* of Sauvageot, *Buisson d'Or, Henri Linger, Mrs. John Whicher**, and *Isabel Llorach* (these are either shrubs or climbers). Those that made the least growth and suffered most from disease were *Oriental Queen, Jeanne Saultier, Duchess of Atholl, Lallita, Président Deville, Mrs. Fred Howard, Advocate, Pardinas Bonet*, etc. There were also some roses of the most ordinary type not worth being entered in a contest of new roses.

The Jury was composed of the Mayor of Barcelona; Mons. Croibier, delegate of *Les Amis des Roses;* Senor Rubió, Director of the Public Parks of Barcelona; two members of the National Horticultural Society; an amateur; and the Secretary, Señor Aldrufeu.

The Jury met in the royal gardens of Pedralbes, November 21, carefully examining the roses, taking account of the notes made during the year by the Director of Parks, and the opinions given by Mr. Clark, President of the American Rose Society and Mons. J. C. N. Forestier during his previous visit at Pedralbes. The Jury awarded the Grand Gold Medal of the King for foreign roses to *Diane de Broglie*, of Chambard, the Grand Gold Medal of the King for a national rose to *Duchesse de Penaranda*, of the writer; and the Gold Medal of the City of Barcelona was awarded to *Golden Gleam*, of Beckwith, as the most abundant flowering during summer and autumn. Three Certificates were awarded: one to the red rose, *No. 6166*, of Ketten Bros., with luxuriant growth; one to the beautiful yellow rose of Mons. Mallerin, *Mrs. Pierre S. du Pont*, the color of which was very much commented upon by the Jury; and the third to *Elizabeth of York*, of Dobbie & Co., with a plant of great vigor and remarkable health, and with well-formed flowers on strong stems.

Some varieties had arrived too late to show their possibilities. A few were deemed worthy of further study, and will be considered again in 1930.

### ITALY

From her summer home in the Province of Arezzo, Countess Senni sends us her frank and friendly comments on the roses as she finds them. She writes:

As usual, my roses came and went so quickly in May that I had hardly a chance to see them. The one great surprise was *Cuba*. It was by all odds the most brilliantly colored rose in the garden, and when I tell you that Padre and Elvira Aramayo were dull beside it, you will know what I mean. The cause of my surprise was that I had seen it at Bagatelle, rather wilted in hot weather, and again at Bar Harbor, and thought it very pretty and distinctly *old-rose*, whereas this spring it was the most brilliant orange-coral I have ever seen.

*Duchess of York* was beautiful, a warm yellowish coral, such a rich and yet soft color that I would put it with Padre and Angèle Pernet. *Daphne* is a rich, deep, "true" pink, with no yellow or "warm" tones, but a very good color. *Jules Gaujard* and *Mme. Henri Queuille* are fine new French roses, of a cherry-coral-pink, and *Souv. de Pierre Guillot* had beautiful buds.

Here in the mountains I came too late for the June blooming, and they are now preparing for the second, but hot winds spoil the flowers. I do not like *Rev. F. Page-Roberts*—it is too apricot for my taste; and *Mabel Morse* is too lemon-yellow. Everyone has his special weakness, and *Golden Emblem* is mine, and the standard by which all other yellows are judged. *Benedicte Seguin* is a beautiful yellow, and fragrant, but such a shy bloomer. *Padre* is rather "shy" in Rome, but here runs *Mme. Edouard Herriot* a race as a "monthly" rose. It

*Mrs. John Whicher is no more! It turned out to be Paul's Lemon Pillar renamed by mistake and its honest introducer, E. Percy Smith, withdrew it.—Editor.

grows into a very large bush, is almost constantly in flower, and is an invaluable rose for garden effect.

This winter's severity broke all records in Europe for over half a century, and here the ice and snow were very bad, killing many things, even the hardy asters, but no roses. I brought up lots of new ones to replace the losses, and found no place to put them. *Mermaid*, in the most exposed position of all, did not suffer, and is now 18 to 20 feet high. For sheer decorative effect on a house, it is the best of all climbing roses, for it is so constantly in bloom, and the very showy, big flowers with their yellow centers stand out against the glossy, dark foliage.

*Ethel* is one of the best pink climbing roses (I forget if it is a Wichuraiana); it stays a long time in bloom, and the large bunches of soft pink, crinkled flowers are very pretty.

My Australian roses arrived well, but have never done much. *Kitty Kininmonth* and *Nora Cunningham* are the best, and very pretty roses, but refuse to climb. *Miss Marion Manifold* has not climbed at all, after six years, and I have not seen a flower on *Black Boy* after two.

I liked the Rose Annual very much, but missed Mr. Stevens' "Proof of the Pudding," which was the most valuable item in it for me. When one reads five or six opinions of a rose, one has a better idea what it is.

### AUSTRALIA

Two interesting and important major articles from Australia were received this year, and also a jolly letter from Dr. Tom Guthrie, President of the Rose Society of New South Wales. It is quite apparent that Australia, so far as its rose-thought is concerned, is much closer to America than the month of mail-time between us would indicate. Our Australian friends are frank, critical, and appreciative. Dr. Guthrie writes:

I hope that an increasing proportion of the members of the American Rose Society will give us the results of their experiments, and that they will go in for real experiments rather than for general impressions.

I know you consider me a dreadful unbeliever, but as time goes on I am more and more disinclined to accept any old dogma as applying to New South Wales conditions.

Just at present I am wondering whether the current statement that "seed-pods" on roses "rob the plant," is not another instance of "*á priori*" error.

We lose our leaves from the roses relatively early, owing to black-spot, and this checks growth, although the season is still far from unfavorable in other respects. I am inclined to think that pod development actually assists in keeping the circulation going; *i.e.* the plant will carry on longer than if the pods are removed.

Perhaps seed-pods are unsightly, but we are inclined to be prejudiced owing to our having been brought up on the old idea of the harm they do. Experimental proof is appallingly difficult, but analogies from fruit trees and so on are not necessarily applicable—especially under our conditions.

We have a little rose circle at the restaurant where I dine, and are allowed one rose for the table each Wednesday. I got in a beautiful Etoile de Hollande today, which netted me 3 points. It is very gratifying how interesting people find our little competition. Needless to say, the proprietor also likes the idea!

# A "Primer" Rose-Book

By J. HORACE McFARLAND

RECENT inquiry of the members of the American Rose Society makes plain their desire to have the Annual advance in rose-growing, rather than continue to repeat the primary details for the beginner. It is easily apparent that the pages of the 1930 Annual are of high-school, collegiate, or even university standing, made so by the help of the rapidly increasing number of experienced rosarians who work with us.

But the beginner must be served. We need a million, several millions, more rose-beginners in America, for it is the beginners, if they are guided to avoid the pitfalls, who eventually become the experts, the real rosarians.

This guidance, this "primer" rose-book, has now been provided. It is "How to Grow Roses," published December 15, 1929, by the Macmillan Company of New York. Serving as the 17th edition of Robert Pyle's book of the same name, it is entirely new in all except the "how to" title.

With a sincere desire to serve not only the beginner but the acquainted rose-lover, Mr. Pyle associated with himself the writer of these words and Mr. G. A. Stevens. Each of these joint authors has had much active experience. As Editor of this Annual, the writer has surely heard of the trials and troubles, as well as the successes of the rose amateur. Mr. Stevens has been his assistant for some six years in the editing of the Annual, and in addition has developed an inquiring disposition and an unwillingness to accept tradition without corroboration.

So we have made "How to Grow Roses," a new book in ideals, in words, in pictures. I can write these seemingly immodest words here because, as authors, we have written this book as a labor of rose-love, giving up the usual "royalty" so that "How to Grow Roses," with its 211 pages, its 138 illustrations (45 in natural color), its experiences, may be sold for $2.

We are proud of this honest book of present-day American rose-facts. We commend it because we know it provides the basis for rose success anywhere in America.

# The Proof of the Pudding, 1930

EDITORIAL

THE popular demand for the resumption of this survey of the behavior of new roses makes it unnecessary to apologize for the amount of space given it. This year we have tried to condense the material considerably in order to save space and improve its interest.

The strict alphabetical arrangement has been dropped for the present, in order to emphasize the *age* of the roses. Five years seems old enough, and it is unlikely that we will ever discuss many of the 1925 roses in this fashion again. In dating them we have used the year when they were first described in the American Rose Annual. A few years ago, this had little relation to the actual age of the roses in American commerce, but conditions are better now, and most important varieties are obtainable in this country the same year or the next after they are reported in the Annual.

We have searched American catalogues and compared all the roses introduced in commerce from 1925 on with the lists published in the Annual. There are a great many roses which have never reached us. Some of them may show up later, but it is fair to assume that any five years old which are not now known are not worth knowing.

We invite reports for this department for next year, but we earnestly request that they reach us before the middle of December. This year, some correspondents delayed until after January 1, and it was only by working many long nights that we were able to assemble them in time for this issue. We don't mind doing this when it is necessary, but there seems no good reason why all reports cannot be here at the time requested. Enclosed with the Annual is a return card which we hope will be signed and returned to us upon reading this article, by all those who are willing to report on new roses this year, so we may know on whom to depend.

It will also help us greatly if each variety is reported separately, leaving plenty of space between them so that the reports can be cut apart and sorted. It would be even better to use

small cards, about 3 by 5 inches, allotting one variety to each card. This will save much leafing through piles of letters, greatly lighten the work of copying, and prevent us from overlooking any items which may be buried in the midst of other correspondence. We ask this editorial coöperation.

For next year's report, we suggest that all roses older than 1926 be omitted. This can be easily checked by referring to the index of roses described in each Annual. We particularly want information concerning the roses of 1928, 1929, and 1930. Some correspondents evidently feel that we only want to know about those roses which have succeeded with them, and omit their failures. We want both. It is just as important to know which do not do well as which do.

In summarizing the reports, we have used only the last name of each correspondent. Reference to the list of contributors printed below will show the part of the country from which each report has come.

To the following members who have helped with their advice and contributions, we express our personal thanks and the gratitude of the entire Society:

*Armstrong*, John A., Armstrong Nurseries, Ontario, Calif.
*B. & A.* Bobbink & Atkins, Nurserymen, Rutherford, N. J.
*Bane*, Mrs. James A., Roanoke, Va.
*Boone*, W. J., College of Idaho, Caldwell, Idaho.
*Bramble*, Dr. C. C., U. S. Naval Academy, Annapolis, Md.
*Clement*, Mrs. Hazen, Wayland, Mass.
*Connors*, R. J., Cincinnati, Ohio.
*Creech*, Mrs. R. B., Chattanooga, Tenn.
*Cross*, Whitman, Chevy Chase, Md.
*Davis*, Clarence A., Buffalo, N. Y.
*Decker*, Arthur N., Old Lyme, Conn.
*Dunning*, David M., Auburn, N. Y.
*Elliot*, Dr. G. T., Oxford, Maine.
*Fay*, J. B., Norfolk Navy Yard, Portsmouth, Va.
*Flett*, Frank, Hamilton, Ont., Can.
*Foote*, Mrs. Harriet Risley, Marblehead, Mass.
*Free*, Montague, Brooklyn Botanic Gardens, Brooklyn, N. Y.
*Furniss*, Earl P., Portland, Ore.
*Graham*, Dr. Ralph, Monmouth, Ill.
*Gray*, Joseph, Stockton, Calif.
*Greef*, Otto, Pittsburg, Kans.
*Hamblin*, Stephen F., Lexington, Mass.
*Hampton*, Mrs. Hallie Bradley, Fort Worth, Texas.
*Hatton*, R. Marion, Meshanticut Park, R. I.
*Isham*, Mrs. Ralph, Santa Barbara, Calif.
*Kirk*, Dr. T. Allen, Roanoke, Va.
*Lines*, P. L. A., Seattle, Wash.
*Mason*, F. A., Babylon, N. Y.
*McGalliard*, Alexander, Muncie, Ind.
*Middleton*, G. F., Seattle, Wash.
*Mitchell*, S. Roger, The Rose Farm, Purchase, N. Y.
*Neumeyer*, Harry, Sandusky, Ohio.
*New Brunswick* Nurseries, New Brunswick, N. J.
*Nicolas*, J. H., Newark, N. Y.
*Ontario* Agricultural College, Guelph, Ont.
*O'Roark*, Clyde, Covington, Ohio.
*Page*, Mrs. Marion M., Mason City, Iowa.
*Peter*, August C. O., Milwaukee, Wis.
*Preston*, Isabella, Central Experiment Farm, Ottawa, Ont., Can.
*Pyle*, Robert, The Conard-Pyle Co., West Grove, Pa.
*Rice*, C. O., Niagara Falls, N. Y.
*Riggs*, Frank C., Portland, Ore.
*San Diego* Rose Society, reports in the San Diego Rosarian. Sent to us by F. L. Hieatt of San Diego, Calif.
*Schirmer*, Carl O., St. Joseph, Mo.
*Simonson*, Grace H., Lake Alfred, Fla.
*Smith*, Mrs. N. B., Kokomo, Ind.
*Sulliger*, Rev. Spencer S., Tacoma, Wash.
*Webster*, A. J., Toronto, Ont., Can.
*Wedrick*, Chester D., Nanticoke, Ont., Can.
*Wertz*, Elmer C., Seattle, Wash.
*White*, Clarence G., Redlands, Calif.
*Widmeyer*, Mrs. J. I., Chattanooga, Tenn.
*Yeager*, A. F., State College, Fargo, N. Dak.

## ROSES NOT DISCUSSED

The reports included a great many roses described in the Annuals previous to 1925. We have omitted the best known of them. Surely varieties such as the following cannot be considered novelties and need be discussed no longer:

Albertine. (Barbier, 1921.)
Angèle Pernet. (Pernet-Ducher, 1924.)
Betty Uprichard. (A. Dickson, 1922.)
Coralie. (W. Paul, 1919.)
Jacotte. (Barbier, 1920.)
Lord Charlemont. (McGredy, 1922.)
Wilhelm Kordes. (Kordes, 1922.)

On the other hand, the following have not made sufficient impression after five years to be considered worth discussing:

Achievement. (English, 1925.)
Bloomfield Comet. (Thomas, 1924.)
Bloomfield Decoration. (Thomas, '24.)
Bloomfield Fascination. (Thomas, '24.)
Bloomfield Mystery. (Thomas, 1924.)
Bloomfield Perfection. (Thomas, 1924.)
Clovelley. (Hicks, 1924.)
Courage. (McGredy, 1923.)
Dr. A. I. Petyt. (Burrell, 1924.)
Empire Queen. (Easlea, 1925.)
Fred J. Harrison. (A. Dickson, 1924.)
George H. Mackereth. (A. Dickson, 1924.)
Gneisenau. (Lambert, 1924.)
Gooiland Beauty. (Van Rossem, 1924.)
Gwyneth Jones. (McGredy, 1925.)
Heart of Gold. (Van Fleet; A. R. S., 1924.)
Josephine Thomas. (Howard & Smith, 1924.)
LadyDixon-Hartland. (B,R.Cant,'23.)
Lady Martha Bruce. (Ferguson, 1925.)
Mabel Jackson. (Easlea, 1924.)
Maria Reid. (Ferguson, 1924.)
Mme. Henry Lustre. (Buatois, 1924.)
Mme. Paul Ollivary. (Schwartz, 1924.)
Mrs. R. B. Moloney. (McGredy, 1925.)
Mrs. Talbot O'Farrell. (McGredy, '26.)
Nona. (Easlea, 1924.)
Princess Marie José. (Opdebeeck, 1925.)
Queenie Robinson. (Easlea, 1924.)
Reims. (Barbier, 1924.)
Royal Red. (E. G. Hill, 1924.)
Souv. de Mme. Louise Cretté. (Cretté; intro. by Chambard, 1924.)

Another small group of roses follows upon which we have received one or two very enthusiastic reports.* They are recommended for trial and later report.

Anne. (Pemberton, 1925.)
Bergers Erfolg. (V. Berger, 1924.)
Bloomfield Dainty. (Thomas, 1924.)
Bloomfield Exquisite. (Thomas, 1924.)
Cl. Los Angeles. (Howard & Smith, 1925.)
Mabel Turner. (H. Dickson, 1923.)
Milano. (Ingegnoli, 1923.)
Mrs. George C. Thomas. (Thomas, 1925.)
Rose Dawn. (Towill, 1924.)
Ile de France. (Nonin, 1922.)
Kitty Kininmonth. (Clark, 1922.)
Le Rêve. (Pernet-Ducher, 1923.)
Miss Marion Manifold. (A. Clark, 1911.)
Salmon Spray. (Grant, 1923.)
Scorcher. (A. Clark; intro. by Hackett & Co., 1922.)
The Beacon. (W. Paul, 1922.)
Türkes Rugosa Sämling. (R. Türke; intro. by V. Teschendorff, 1923.)

*Some of these were discussed in the "Proof of the Pudding" in 1927 and 1928.

## ROSES OF 1925 AND EARLIER

Omitting the foregoing, the following list of roses of 1925 or earlier are deemed sufficiently well known for discussion.

BLACK BOY. Cl.HT. (A. Clark, 1919.) A. R. A., 1924; P. P., 1927–28.*

We have admired this rose from the first, and still believe in it. Doubt as to its hardiness is dispelled by *Webster's* report that it has withstood two winters in Toronto without protection, bloomed well, and kept its marvelous color. *Isham* of southern California grows it as a pillar without support and reports more than 200 buds and blossoms open at once. *Nicolas* doubts its hardiness, and *Hampton* has not found it very satisfactory.

BLOOMFIELD COURAGE. HW. (Thomas, 1925.) P. P., 1928.

Still a favorite at Breeze Hill, an opinion evidently shared by *Hamblin*, who calls it "best of small single red HW.'s, . . . better than Hiawatha, darker, and like a small red clematis, a slender, strong grower, makes a wonderful pergola vine—midseason." *Hatton* is equally enthusiastic, adding that its foliage is free from disease and that it is perfectly hardy. *Middleton* agrees and recommends it, adding that it blooms only once. (It has been reported recurrent in California.) *Cross* repeats his commendation of 1928, calling it a real treasure and a true climber covering a wide space in a short time. He compares its fresh red flowers to "a child's smile" and admires its profusion of bright red hips in autumn and winter.

DORIS DICKSON. HT. (S. Dickson, 1924.) A. R. A., 1925; P. P., 1928.

Has made no impression at Breeze Hill. *Armstrong* condemns it for fading and poor shape. *Nicolas* praises its color but calls the plant a "scoundrel." *Webster* similarly likes the flower but says the plant is small. With *Elliott* it grows medium tall, blooms well but not continuously, and he likes its color and perfume. *Hampton* praises its freedom from black-spot. We think it is wholly unimportant and can be dropped without loss.

ELSE POULSEN. Poly. (Poulsen, 1924.) A. R. A., 1924.

A splendid single pink, continuously blooming rose with us, that should make a splendid low hedge or massed bed. Superior in all respects to the older type of Polyantha. *Dunning* praises its growth, *McGalliard* likes it, *Armstrong* likes the color, size, and shape of the flowers and admires its vigor. *Ontario* had it in bloom fourteen weeks and calls it a beauty, but remarks that it is scentless and slightly inclined to black-spot.

GWEN NASH. Cl.HT. (A. Clark, 1920.) A. R. A., 1923.

We have had it several years and have been in raptures over the beauty of the few flowers we have had, for we regret that it has not flourished. We believe this is more the fault of the plant than the variety, and must get a stronger start. *Nicolas* admits that "it has a place," *White* likens the flowers to "a better, daintier wilding," *Isham* praises the blooms but says it was unsuccessful the first year as a climber. Knowing the vigor of its kinsman, Daydream, we are sure that only a little patience is required to establish this rose as a favorite.

HENRY NEVARD. HP. (F. Cant, 1924.) A. R. A., 1925; P. P., 1927–28.

This rose has been well liked and had favorable reports in previous discussions. It has especially good color and form. *Page* likes it. *Davis* describes it as massive, intensely fragrant, and gorgeous dark red, but of only fair growth

*These symbols mean that Black Boy is a Climbing Hybrid Tea rose originated by Alister Clark, introduced in 1919, described in the American Rose Annual in 1924, and discussed in "The Proof of the Pudding" in the 1927 and 1928 Annuals.

and once blooming. *Webster* says it is vigorous, disease-resistant, with magnificent, fragrant blooms of exhibition quality produced on strong stems with a prodigality that should arouse the envy of many Hybrid Teas. *Pyle* tells that he uses it to pay the rent of one red rose on an important piece of property because it furnishes the best flower to be found in 20 acres of rose-bloom.

JOHN C. M. MENSING. HT. (Eveleens, 1924.) A. R. A., 1924–25; P. P., 1928.

Evidently did not make good as a florists' variety and did not strike us as particularly distinct or valuable in the garden. *Cross* feels it is worth keeping, *Hampton* likes it, *Isham* finds it undependable, *Webster* thinks it better than Ophelia in form, color, and number of petals, but deplores its weaker scent. No one compares it with Rapture, the best of the Ophelia-Butterfly group.

JOHN RUSSELL. HP. (Dobbie, 1924.) A. R. A., 1925; P. P., 1927–28.

Everyone agrees that the flower is very beautiful in form and color and that the plant is strictly Hybrid Perpetual in habit. *Boone* of Idaho finds it a splendid variety—but the other nine people who reported condemn it for mildew, shy blooming, leggy growth, and sundry failings. We shall keep it for the same reason that we keep George Dickson, but it is not recommended.

KIRSTEN POULSEN. Poly. (Poulsen, 1924.) A. R. A., 1925; P. P., 1926.

A new type of Polyantha similar to Else Poulsen in habit, but even a more vigorous grower. Much the same color as Lafayette, with very attractive single crimson flowers. We agree with *Nicolas* that it is excellent hedge material, but have never seen it 4 feet high, as he says it will grow. He compares the flowers with "poppies of Flanders fields." *Dunning* calls it a strong, vigorous grower. *Ontario* says the flowers are fragrant and borne over a period of eleven weeks. *McGalliard* likes it. *Armstrong* does not like it as well as Else Poulsen, but intends to keep it. *Pyle* states that it should be grown in dozens in beds and hedges to get the flaring effectiveness of which it is capable.

LADY FLORENCE STRONGE. HT. (McGredy, 1925.) A. R. A., 1925; P. P., '27–28.

Has never impressed us at Breeze Hill as worth bothering with. *Ontario* declares it is susceptible to black-spot and not very hardy. *Isham* finds it unsatisfactory; *Creech* just ordinary. *Middleton* praises its form, color, growth, and immunity to disease. *Armstrong* considers it unexciting, but better than many other pink varieties, while the *San Diego* reports are in the main favorable.

LORD LAMBOURNE. HT. (McGredy, 1925.) A. R. A., 1925; P. P., 1927–28.

Has been a disappointment from the beginning. *Ontario* condemns its lack of vigor. *Hatton* says it's useless. *Isham* is ready to discard it. *Flett* found it fair, and *Middleton* finds it good at times, but complains of lack of petalage. Evidently this rose could be discarded without loss.

MARCIA STANHOPE. HT. (George Lilley, 1925.) A. R. A., 1925; P. P., 1927–28.

Our opinion is similar to *Ontario's*, that the white blooms are beautiful and slightly fragrant, but the plants lack vigor. With *Hampton* it makes a good bush. *Sulliger* calls it the most beautiful, fragrant, and dependable white rose, and, when well grown, a good exhibition rose, always a good garden rose, and excellent for cutting. *Middleton* believes that plants budded from mature wood will show up better. He says it has fairly good form but does not stand rain and has some trouble with mildew.

MRS. C. W. EDWARDS. HT. (McGredy, 1924.) A. R. A., 1924; P. P., 1927–28.

We have not thought much of this variety at Breeze Hill, but last season we saw some very fine blooms of an astonishingly clear color. It did not bloom much and had no vigor with *Ontario*, but *Webster* found it a wonderful rose in autumn, although ordinary in the summer, with strong growth and very beau-

tiful foliage, resistant to disease. *B. & A.* consider it good. *Middleton* deplores the split center of the flower, praises its color at times, but considers its splendid growth as its only real asset. *Isham* calls it very good in growth and foliage. *San Diego* praises its growth and profusion of bloom, and reports that the color is good if cut in the bud. Evidently this variety merits further trial.

Phyllis Bide. Mult. (Bide, 1924.) A. R. A., 1925; P. P., 1927–28.

*Hamblin* describes it as not very high-climbing, with clusters of few flowers, neither large nor small, mostly yellow in the bud, but pink in age. It produces some second bloom. He considers it distinct as to growth, but not extra. *Neumeyer* praises its growth and everblooming qualities, but complains that the flowers are too small. *Isham* considers the color charming, but we think it is much too fleeting for a garden rose, and its second bloom too sparse to be noted. We should like to see some florist undertake to force it for the spring trade in place of a few thousands of Roserie and Dorothy Perkins. Its pretty buds have a delicious color and it should make a tremendous hit.

Pink Pearl. HT. (M. Leenders, 1924.) A. R. A., 1925; P. P., 1927–28.

This rose and Briarcliff are rivals for the mantle of Columbia. It was very good with us at Breeze Hill, but we feel that Briarcliff is better. *Hatton* says it is the finest pink garden rose, with healthy growth and always perfect flowers, but *Nicolas* dislikes it very much. *Dunning* praises its beautiful form and individual character. *Davis* calls it a trim little, bright carmine-pink, with beautiful buds and fine-shaped flowers. He finds it a good bloomer and deliciously fragrant, and the plant bushy and resistant to disease. *Ontario* considers it worth a trial. *Isham* says it is very fragrant and lasting, but a shy bloomer with foliage subject to black-spot. *San Diego* reports that it is very fragrant, with very beefy color in hot weather, and not so good as Columbia in form.

Richard E. West, HT. (A. Dickson, 1924.) A. R. A., 1924; P. P., 1928.

*B. & A.* consider it extra good. *Webster* describes it as a soft yellow with a strong appeal, fairly vigorous, rather horizontal growth, and free-blooming. He likes it. *Ontario's* report is similar, but calls it a shy bloomer. *Peter* says it is the best yellow rose in his garden. We have liked it for several years, but have not found it a very good grower, and the flowers are certainly thin.

Roselandia. HT. (Stevens, 1924.) A. R. A., 1925; P. P., 1927–28.

Evidently still retains some of the good opinions expressed in the 1928 Annual. *Foote* finds it very satisfactory in growth, bloom, freedom from disease, and autumn display. *Mason* reports fair growth, not so good as some other yellow varieties, but better than ordinary. *Nicolas* is ready to discard it, but *Webster* thinks it is better than Golden Ophelia and that there is still room for it. *Ontario* finds it good, with very little black-spot. *Creech* thinks it is fair. *Lines* does not think it is as good as Golden Ophelia, although it may have more color. *Isham* finds it vigorous, with clean foliage and excellent spring bloom, while *San Diego* reports that it is the best thing in the Ophelia line for growth and bloom, with good color, although the buds are small. Our experience with Roselandia has not been very encouraging. At first we thought it was by far the best of the yellow Ophelia group, but now it seems less important.

Shot Silk. HT. (A. Dickson, 1924.) A. R. A., 1924; P. P., 1927–28.

Has been consistently disappointing at Breeze Hill. *Ontario* found it distinctive in color and fragrant, but not full enough, with only a small touch of black-spot. *Hampton* sticks to her high praise expressed in 1928, while the *San Diego* reports are in the main favorable, but vary with respect to the flower and attractiveness of the color. We are inclined to believe that Shot Silk can be dropped except in the Southwest, and possibly the north Pacific Coast.

Superb. HT. (F. Evans, 1925.) A. R. A., 1925.

We do not know this rose at Breeze Hill. *Simonson* describes it as an enormous, very double flower of light silvery pink with a deep rose center. One of her blooms measured 7 inches in diameter. *Nicolas* calls it a substitute for La France without the perfume, which isn't much of a recommendation. *Ontario* finds it very vigorous, well-formed, double, and fragrant with some black-spot and a trace of mildew. *Webster* considers it well named, and an exhibition rose suitable for the garden.

White Ensign. HT. (McGredy, 1925.) A. R. A., 1925; P. P., 1927–28.

Our poor little plants have finally gone where all good roses eventually go, and we are sorry, because we liked the flower in color and shape and the freedom with which the puny bush produced them. *Flett* found the growth fair, the foliage good, the flower full, of good shape, and fairly numerous. *Preston* finds it very floriferous. *Webster* found it charming, free-blooming, resistant to disease, and particularly attractive in the bud. *Ontario* reports its growth and blooming as moderate with a 12 per cent showing of black-spot. Note that all these are Canadian reports, showing that White Ensign has probably not been in United States commerce. Our own plants were imported from England.

## ROSES OF 1926

### For some reason, these roses were practically ignored:

Autocrat. (Beckwith, 1925.)
Becky. (Beckwith, 1925.)
Belle Cuivrée. (Pernet-Ducher, 1924.)
Belle Ollivary. (Pernet-Ducher, 1924.)
Ben Stad. (Undritz, 1925.)
Bertha Turner. (Pemberton, 1925.)
Climbing Betty. (Hohman, 1926.)
Climbing Radiance. (Griffling, 1926.)
Climbing Sunstar. (A. Dickson, 1925.)
Daydream. (A. Clark; intro. by Hazlewood Bros., 1925.)
Elnar Tonning. (Gyllin, 1926.)
Eric Holroyd. (Chaplin, 1925.)
Gooiland Glory. (Van Rossem, 1925.)
Grete Bermbach. (Leenders 1925.)
I Zingari. (Pemberton, 1925.)
John Henry. (Beckwith, 1925.)
Lady Syd. Eardley-Wilmot. (Chaplin, 1925.)
Lord Calvert. (J. Cook, 1925.)
Mary Merryweather. (Merryweather, 1925.)
Mrs. F. F. Prentiss. (Horvath, 1925.)
Mrs. Herbert Nash. (Chaplin, 1925.)
Mrs. Murray Allison. (Prior, 1925.)
Mrs. S. W. Burgess. (Burgess, 1925.)
Nora Henslow. (Evans, 1925.)
Pius XI. (M. Leenders, 1925.)
President Coolidge. (Horvath, 1925.)
Scarlet Glory. (A. Dickson, 1925.)
Simone de Chevigne. (Pernet-Ducher, 1924.)
Simone de Nanteuil. (Schwartz, 1925.)
St. Ingebert. (P. Lambert, 1926.)
Superba. (Cutbush, 1924.)
Surville. (Croibier, 1924.)

### The following sorts have received considerable comment:

Barbara Robinson. HT. (A. Dickson, 1925.) A. R. A., 1926; P. P., 1927–28.

This rose has been one of our pets ever since we got the first plants from England four years ago, and it seems that most of our correspondents agree with us. *Preston* calls it a very beautiful rose with a long season of bloom and vigorous growth. *Webster* finds it blooms with amazing freedom, and *Ontario* reports it "quite satisfactory," with only 10 per cent black-spot infection. *Hatton* says it is beautiful in every stage from the cream-colored bud to the pure white, expanded flower. He finds it hardy, a free bloomer, with very little fragrance, but good growth and healthy foliage. *B. & A.* check it "good." Note again

that most of these reports are from Canada, indicating that it has not had a fair break at the hands of the nurserymen in the United States.

BRIARCLIFF. HT. (Briarcliff, 1925.) A. R. A., 1926; P. P., 1927–28.

We think it the best of the Columbia sports, preferring it to Pink Pearl. *Hatton* states that every bloom is perfect. *Free* mentions its good growth and floriferousness. *Mason* evidently had a poor start. *Ontario* found it black-spots 30 per cent, and feels that it is much better under glass than in the garden. *Widmeyer* considers it good.

DAINTY BESS. HT. (Archer, 1925.) A. R. A., 1926.

We found this most attractive early in the season, when its large, pale pink flowers with dark red stamens were produced on tall, strong stems. Later it failed to grow, and we had very little autumn bloom. *Hatton* says "it is really exquisite, with wine-colored stamens. The notched petals form a flower more nearly square than round." He also found that it did not bloom well after the first crop, although it came back nicely in September. *B. & A.* report it very good. *Preston* describes it as "a beautiful single with large silvery pink petals, in bloom all season." *Ontario* recommends it highly as the finest single rose they know, stating that the plant is strong and has not winter-killed, with a 13 per cent black-spot infection. *Armstrong* finds it "exceedingly lovely," and describes the center as brownish red, but is unwilling to commit himself upon its growth. (See picture facing page 73.)

DAME EDITH HELEN. HT. (A. Dickson, 1926.) A. R. A., 1926; P. P., 1928.

We have steadily admired the flowers of this rose, but regretted there were so few of them. The plant does not grow well at Breeze Hill. Twenty-five of the fifty-odd reports mention this rose, showing how widely it is distributed, and should give us a pretty accurate survey of its behavior. In Canada, *Preston* finds it beautiful, but not vigorous. *Webster* says it does not grow or bloom freely. *Ontario* finds it disappointing, having lost four plants out of five, averaging six blooms per plant for two years, with a high susceptibility to black-spot (47 per cent), and no fragrance. *Flett* found growth and foliage fair, and the flower fair and of good shape in June, but nothing afterward. *Wedrick* says it does extra well and blooms the second time. In New York, *Rice* has had no success. *Dunning* finds it desirable because of its perfect shape, with its wonderfully curved petals so well built up in the center, but shy after the first blooming. *Nicolas* calls it a "false alarm," to be grown as a maiden only for exhibition blooms. *Free* finds it an absolute failure. Others reporting from the East include *Hatton*, who gets a few perfect blooms in June, a very few ordinary flowers in July and August, and two or three good blooms in September. The plants grow little, and seem to get smaller every year. *B. & A.* report it very good. For *Cross* it has failed. It shows normal vigor, but he states that two or three fine blooms are not enough to compensate for the poor ones which it produces. *Fay* reports that it has given a good account of itself in Virginia, but *Creech* finds it poor in Chattanooga. *Conners* finds it a splendid upright plant with excellent fragrant flowers of very lasting quality. He says it is vigorous, with good foliage, free from disease, but a shy bloomer in the fall. *O'Roark* is enthusiastic over its bloom, but finds the leaves fall off early and the plant is through for the year. Evidently he likes it, because he says its motto is "quality not quantity." *Peter* says it is a remarkable rose that ought to do better from year to year. Apparently, he does not know it as well as some others do. *Furniss*, in Oregon, finds it nearly perfect for him, with large, full flowers. He says it is a better bloomer the second year and gives good blooms late in the season; reports that it has good foliage. *Wertz*, of Seattle, finds it only fair.

*Lines* says it is mediocre if overfed but, given ordinary treatment, produces very beautiful, fragrant blooms. *Middleton* praises its large, full bloom of splendid spiral form, which lasts for days when cut and does not fade. He states that it takes time for the plant to become established, and that the best blooms come from small side shoots. The foliage is good, not troubled by mildew, but he complains that it does not bloom enough. *Isham* reports fine foliage and wonderful blooms borne on strong canes. Reports from *San Diego* vary, but the majority consider it excellent in growth, blooming qualities, and beauty of bloom. In Texas it grows and blooms enough to make *Hampton* enthusiastic over it. In Florida, *Simonson* calls it perfect and, perhaps, the best all-round pink with good canes and strong bushes. In short, all Canadian and northeastern reports are unfavorable. Throughout the South, from Florida to California, it seems to do well. The Pacific Northwest evidently finds it satisfactory, and it seems to do pretty well from Cincinnati west and north.

Desmond Johnston. HT. (McGredy, 1927.) A. R. A., 1926.

Although described in 1926, this rose did not come out in England until 1927, and evidently has not been on the market long enough in this country to make much of an impression. *Foote* reports poor growth after trying with new plants two years in succession. For *Mitchell* it does well all season, with a great many blooms and no black-spot. *Ontario* reports that it is vigorous, with good-sized, full scarlet flowers flushed orange, 10 per cent black-spot, and no winter-kill. *Middleton* had a few flowers of good form, while others were almost single. His plants lose foliage and are troubled with black-spot. He feels that it is suffering from over-propagation, and that it will be a good rose when it has regained its constitution.

Dr. E. M. Mills. H.Rug. (Van Fleet, 1926.) A. R. A., 1926; P. P., 1928.

*Preston* reports that it blooms two weeks in June and has a few scattering flowers in midsummer. The plant is vigorous and ornamental, even when not in bloom. *Webster* also had a few flowers in midsummer and healthy, vigorous growth. *Cross* considers it a valuable shrub whose early bloom, fragrance, good foliage, and tendency to improve each year are excellent points. He claims that it must be carefully pruned to produce a shapely bush. *Yeager* states that it winter-killed severely in South Dakota, and that it is not of much value for his region. *Isham* found it a rampant grower, a shy bloomer, and very disappointing, which is to be expected in the warm California climate. We think that its chief merit lies in its early bloom and its dwarf, spreading, shrub-like habit. It blooms only once at Breeze Hill.

Duchess of York. HT. (S. Dickson, 1925.) A. R. A., 1926; P. P., 1927–28.

Our experience has been exactly like that of *Webster*, who says "first crop blooms give a real thrill, but later flowers are disappointing. The lady sets too hot a pace in the early season, and is unable to offer resistance to disease." *Ontario* finds it unsatisfactory, with 30 per cent black-spot. *B. & A.* report it good. *Middleton* finds it "a little better than most loose-petaled varieties, color is its outstanding attraction, growth and habit satisfactory, not free enough with its blooms." *Armstrong* states that it is rather shapeless, but has big, loose-petaled blooms of lively color while they last, which is not long. *Hampton* considers it a wonderful bloomer and grower.

Florex. HT. (Florex, 1927.) A. R. A., 1926; P. P., 1928.

*Hatton* finds it "a vigorous plant which blooms well in June, then loses its foliage, and does little afterward until late September, when it is again free-flowering. The plant is hardy, but the flowers are not distinct enough." *Ontario* reports it worthless with 22 per cent black-spot; *Wertz*, good color, fine form,

fair bloomer, good foliage. *Hampton* lost "about twelve greenhouse-grown plants, but outdoor stock does well and the bloom is good." This is another florists' variety which is apparently of little use in the garden.

Golden Gleam. HT. (Beckwith, 1926.) A. R. A., 1926.

We have no use for this variety at Breeze Hill. The color is good, it makes fair growth, but the flowers are entirely too scarce and fleeting. *New Brunswick* thinks highly of it. *Webster* reports "this looks like a big improvement on Golden Emblem, with few of that variety's faults; symmetrical growth, exceedingly free-blooming, and most charming in color and shape. If we allow all the buds to develop, it loses substance but has shown sufficient merit to warrant purchasing more plants." It has won *Pyle's* heart by the purity and richness of its color and its clear-cut, model form. *Ontario* reports it moderately vigorous. *Middleton* also finds it better than Golden Emblem, but states that the growth is not very vigorous, and that many other yellow varieties are better. *Armstrong* considers it very similar to Golden Emblem; somewhat more intensely colored, but smaller.

Henry Ford. HT. (Deverman, 1927.) A. R. A., 1926; P. P., 1928.

We have not grown it at Breeze Hill, because what we have seen of it elsewhere looked pretty bad. *Hatton* calls it a large, thorny plant which black-spots, but blooms freely at times; the color fades. He thinks there is not much to it. *Free* says it is worthless so far, perhaps, because he has relied on pot plants. *Nicolas* calls it a poor thing, unworthy of the name.

Holt Hewitt. HT. (Beckwith, 1925.) A. R. A., 1926; P. P., 1927.

We discarded this rose several years ago because of poor growth and lack of bloom. *Ontario* found it blued badly, had no fragrance, and 50 per cent black-spot. *Lines* still has hopes for it because its blooms are so much like George Dickson, with perfect form and rich, velvety color. He feels that it will prove to be a great rose. *Middleton* comments upon its resemblance to George Dickson but deplores its growth and unattractive foliage. He finds it untroubled with disease, and the color unfading.

Ivy May. HT. (Beckwith, 1925.) A. R. A., 1926; P. P., 1927–28.

It is not very vigorous with *Preston* and has few blooms. *Webster* calls it a vest-pocket edition of Mme. Butterfly. *Ontario* reports it is not vigorous, and while the flowers are attractive at first, they open too quickly; black-spot 12 per cent. *Middleton* admires the unusual color but condemns it as a mildew slave, stating that it is better on a standard, but not worth the bother because it has no form. *Armstrong* likes it very much, although it is really nothing more than a highly colored Mme. Butterfly which blooms more freely.

Kardinal Piffl. HT. (Leenders Bros., 1925.) A. R. A., 1926; P. P., 1928.

Our experience tallied exactly with *Hatton's*, who says that it does not bloom enough to impress him very much, and its few flowers fade pink too quickly to be interesting. An average plant with healthy foliage. *Nicolas* advises us to forget the second name, because it is a prince of a rose. *Webster* says "Well named! Slated for the discard." Take your choice.

Lady Helen Maglona. HT. (A. Dickson, 1926.) A. R. A., 1926.

Apparently, this variety is not in commerce in the United States, which is one of the unfortunate results of the beneficent administration of the bug hounds at Washington. It is reported to be an excellent crimson variety which does not fade or turn blue. *Wedrick* considers it his best red variety, which has aroused more favorable comment than any other rose in his garden. *Flett* finds it good, and *Ontario* reports very little black-spot, with very fine, double crimson blooms which do not blue, on strong plants, without fragrance.

LADY MARGARET STEWART. HT. (A. Dickson, 1926.) A. R. A., 1926; P. P., 1928.

More than half of our correspondents reported on this variety. The Breeze Hill experience is pretty well characteristic of all reports from east of the Alleghany Mountains. We found it superior in color and form in the bud, defective in the open bloom, and the plants rather scrawny and unproductive. At first we thought it might be an improvement over Rev. F. Page-Roberts, but its glorious color cannot make up for its inferiority in shape. It is probably nearest to Feu Joseph Looymans, but we believe the Dutch rose is a better grower and bloomer. *Foote* reports severe black-spot. *Hatton* condemns its growth, but *Clement, Mason, B. & A.*, and *New Brunswick* find it good. *Free* says it is a poor bloomer. *Bramble* and *Fay* report disappointment. *Nicolas* calls it an exhibition variety only, while *Rice* likes it. *Webster* admires the bloom and regrets its occasional low center and sparse production, while *Ontario* found its black-spot low (5 per cent), and considers it worthy of further trial. In the Central States, *O'Roark* claims it is a good grower with excellent foliage, but not tall, and keeps everlastingly in bloom, although he admits that others claim that they get hardly any flowers. *Conners* was much impressed by the flowers but had few. *Creech* found it poor. *McGalliard* had nice growth. *Schirmer* calls it not so good, a shy bloomer with good color, fair growth, and inferior to Rev. F. Page-Roberts. It was also a failure for *Page*, but *Greef* gives it first place in his garden. *Boone* lauds it for its freaky color—red with orange streaks in June, yellow with crimson streaks in August, nearly brown in late September. *Furniss* claims that it lacks individuality, although the flowers are large, sweet-scented, and it is a good grower, but subject to mildew. *Lines* has found it disappointing but reserves judgment. *Middleton* likes its form and color, but complains of lack of growth and bloom. For *Isham* it grows well, produces few flowers of wonderful color. *San Diego* reports it good at times, but too stingy and generally over-rated. *Hampton* considers it the best-growing yellow rose she has, with beautiful stems and foliage, wholly free from disease, worth having even without the flowers. The Texas report is the only whole-hearted commendation in the twenty-seven. Its color is universally admired but it is condemned for poor growth, blooming, and form, in one place or another.

LILLY JUNG. HT. (M. Leenders, 1925.) A. R. A., 1926.

Another European rose not available in the United States. We have only two reports, both from Canada. *Webster* found that it grew satisfactorily, but failed to bloom. *Ontario* had sturdy plants and fragrant yellow blooms. They recommend it for trial.

MATCHLESS. HT. (Duckham-Pierson Co., 1926.) A. R. A., 1926; P. P., 1928.

Another greenhouse, forcing rose which we have found of no importance outdoors. *Simonson* had good flowers in the autumn in Florida, but few in summer. *Hampton* finds it a good bloomer and much better than Premier which it might easily be. *Ontario* calls it hopeless.

MEVROUW L. C. VAN GENDT. HT. (Van Rossem, 1925.) A. R. A., 1926.

It requires no prophet to foretell that this rose will never be popular—one look at the name is enough for most. *Foote* finds that it gives good results, with very beautiful salmon-pink flowers on long stems and foliage free from disease. *Hatton* found the flowers rather small, attractive in color, and fragrant, but it hardly bloomed enough to get acquainted with it. *Free* reports miserable growth and few flowers.

MME. ALBERT BARBIER. HP. (Barbier, 1925.) A. R. A., 1926; P. P., 1927–28.

There seems to be a sort of benevolent conspiracy concerning this rose.

Almost everyone calls it good or, like *Nicolas*, "the best dwarf, continuously blooming HP." Nearly all, except the *San Diego* members, admire the flowers, but report, while the color is unusual for an HP., the blooms would not be tolerated in a HT., which we don't think is justifiable. We know a lot of Hybrid Tea roses that cannot approach Mme. Albert Barbier in form or color. The only serious objection to this rose seems to be its comparatively weak habit. We have tried it four years and have yet to see a really vigorous plant. *Cross* agrees with us in this respect; so does *Mitchell*. *Mason*, *New Brunswick*, and *Smith* find the growth satisfactory, and *Webster* says it needs disbudding to produce good flowers.

Mrs. Erskine Pembroke Thom. HT. (Howard & Smith, 1926.) A. R. A., 1926; P. P., 1927–28.

Practically all report this rose excellent for the garden. Many consider it the best yellow. *Page*, *Clement*, *B. & A.*, *Furniss*, *Isham*, *Mitchell*, *O'Roark*, *Decker*, *Davis*, and *Cross* speak of it in the highest possible terms. It was not so good for *Hampton*, who thinks it needs another year to become established. *Greef* found it lacking in size and petals, and inferior to Julien Potin. *Armstrong* objects to the small bud, but otherwise rates it highly. The *San Diego* reports are uniformly favorable, with some objection to the smallness of the bloom. *Mason* thinks it is really as good as Ville de Paris. *Hatton* finds it a good fall bloomer, but shy in midsummer. *Lines* objects to the divided center of the open bloom which he calls an unforgivable fault. *Rice* says it lacks petals. *Nicolas* calls it a useful mediocrity with unsteady foliage.

Mrs. F. R. Pierson. HT. (F. R. Pierson, 1926.) A. R. A., 1926; P. P., 1928.

This is another florists' rose, popular for greenhouse-growing. So far as we know, it has not been seriously considered in the garden. *Hampton* thinks it is too single, and not good enough form. *Ontario* found it fragrant, of moderate growth, with 22 per cent black-spot. Evidently no one needs worry about it.

Mrs. Lovell Swisher. HT. (Howard & Smith, 1926.) A. R. A., 1926; P. P., 1927–28.

Practically all reports are favorable as far as habit and blooming are concerned. *Furniss* and *Fay* found that it black-spots badly. Opinion is divided as to color. *Hatton* calls it pale. *Fay* says the color is notable. *San Diego* condemns the color, but *Nicolas* calls it an improved Mme. Butterfly of great merit. *Armstrong* is enthusiastic over its vigor, growth, prolific blooming habit, and perfect shape. *Rice* finds the color pleasing; *Peter*, very satisfactory; *Furniss*, lovely color and form; *Lines*, good form and very beautiful rose-pink; *Isham*, disease-resistant and attractive color, while *Creech* and *B. & A.* report it very good. Our experience parallels the general report. At first we were inclined to agree with *Free* that it was just another pink rose of good foliage and vigor. It has done remarkably well in all respects and the blooms are notable for their immense size. We do not like its washed-out color, and the open bloom is likely to be flabby. But this is a matter of individual taste, and the reports show that others admire the very things for which we condemn it.

Sarah Van Fleet. H.Rug. (Van Fleet, 1926.) A. R. A., 1926; P. P., 1928.

With us this has been a very fine shrub, with large, fragrant flowers of clear color, much more desirable than Belle Poitevine which it resembles in many respects. *Cross* calls it desirable, with good foliage, sweet perfume, and clear pink color. *Hamblin* says it is very good, deep rose-pink, darker than Conrad Ferdinand Meyer, and not so rampant. *Yeager* states that it killed back in winter in South Dakota, but has produced fairly good blossoms each year.

VILLE DE PARIS. HT. (Pernet-Ducher, 1926.) A. R. A., 1926; P. P., 1927–28.

This rose has been a consistent disappointment. Our first plants grew tall and wiry, and a few balloon-shaped yellow flowers of good color reminded us of Radiance at its worst. New plants and the old have steadily deteriorated for several years. We do not consider it worth growing at Breeze Hill. *Clement* says it has done well. *Hatton* reports good growth, but a shy bloomer. *Decker* most satisfactory, while *Mason* calls it the finest yellow he has ever seen, but admits that the plants do not have as much vitality as others. *New Brunswick* likes it. *Preston* says it is not a strong grower. *Webster* could say much for it if it bloomed more freely. *Ontario* reports a fine bud which opens quickly and fades, flower not full enough, no fragrance, 16 per cent black-spot. *Cross* finds it deficient in vigor and bloom, but hopes for improvement by selective propagation. *Fay* reports it no good, but *O'Roark* claims it gets better each year, with not so many blooms each crop, but keeping steadily at work. He likes it best on Ragged Robin stock. *Widmeyer* and *Creech* find it good, and report it the best yellow yet. *Schirmer* echoes this opinion. *Middleton* has given it up because it blooms so seldom, and only so few are desirable. *Furniss* calls it a non-fading yellow with perfect foliage, a tall grower and very distinctive, flowers large, but not very full, desirable. *Isham* prefers it to Mabel Morse and calls it a prolific bloomer. The *San Diego* reports are generally favorable, some object to weak substance, lack of petals, and poor form. *Hampton* has not been able to grow it.

## ROSES OF 1927

Among the 1927 roses there are many which evidently have not reached American commerce in sufficient quantities to make much impression upon the growers. We think it likely that most of the following may safely be disregarded:

Antonio Rolleri de Peluffo. (Soupert & Notting, 1926.)
Dr. E. Deacon. (Morse, 1926.)
Dr. J. G. Fraser. (Easlea, 1926.)
Eva Eakins. (McGredy, 1926.)
Francie Simms. (A. Dickson, 1926.)
H. C. Valeton. (Verschuren, 1926.)
Hon. Charlotte Knollys. (Bees, 1926.)
Johanniszauber. (Tantau, 1926.)
Laddie. (Beckwith, 1926.)
Lady Wakefield. (B. R. Cant, 1926.)
Lady Worthington Evans. (A. Dickson, 1926.)
Locarno. (De Ruyter, 1926.)
Lucinda. (Heacock, 1927.)
Miss Annemarie Bally. (Easlea, 1926.)
Mme. Leon Guinotte. (Verschuren, 1925.)
Monarch. (Dobbie, 1926.)
Mrs. Atlee. (Chaplin, 1926.)
Mrs. G. A. Wheatcroft. (Wheatcroft, 1926.)
Mrs. Tom Smith. (T. Smith, 1924.)
Naomi. (Pemberton, 1926.)
Pacoima. (Pacific Rose Co., 1927.)
Premier Supreme. (Zieger, 1927.)
Saltaire. (A. Dickson, 1925.)
Sarah Wright. (Morse, 1927.)
Souvenir de Clermonde. (Pernet-Ducher, 1925.)
Studienrat Schlenz. (P. Lambert, 1926.)
Totty's Red. (Totty, 1926.)

Yet in this list are such varieties as Johanniszauber, Locarno, Souvenir de Clermonde, and Studienrat Schlenz which possibly will bear watching.

The following 1927 roses are important, but not enough reports have been received to enable us to treat them fully:

Bedford Crimson. (Laxton, 1926.)
Billy Boy. (Beckwith, 1926.)
Cecil. (B. R. Cant, 1926.)
Dolly Brownell. (Brownell, 1926.)
Dorina Neave. (Pemberton, 1926.)
Ellen Terry. (Chaplin, 1925.)
Irish Charity. (McGredy, 1927.)
Irish Charm. (McGredy, 1927.)
Irish Morn. (McGredy, 1927.)
Irish Sweetness. (McGredy, 1927.)
Lady Sylvia. (Stevens, 1926.)

Now come the 1927 roses generally tried out:

Bishop Darlington. Cl.HT. (Thomas, 1926.) A. R. A., 1927.

*Hamblin* and *Hatton* report that it suffers badly in winter in New England but produces new growth 4 to 5 feet tall which blooms well in June, August, and September, with a few flowers all summer. *Hatton* likes it. *Cross* finds it very desirable for trellis or pillar and likes its splendid, long-pointed, orange buds, even if the semi-double flowers pass quickly. Thinks it might be better in shade. *Middleton* considers it one of Thomas' best introductions, with attractive blooms which ought to have more petals. It grows about 8 feet high and is not troubled with disease. Our plants have not grown well, but we like the appearance of the bush as we saw it at Mr. Cross's.

Breeze Hill. HW. (Van Fleet; intro. by A. R. S., 1926.) A. R. A., 1927; P. P., 1928.

This is naturally our pet climbing rose, and it seems to be making good wherever it gets established. *Preston's* young plants did not survive a Canadian winter. *Mason* calls it one of the finest, with strong, sturdy canes and magnificent blooms. He would not be without it. *New Brunswick* believes it is here to stay. *Cross* considers it a real success, with healthy foliage and charming, many-petaled blooms of several light tones. It improves each year with him. *Boone* finds it all that could be desired in growth and foliage. *Furniss* reports that it grows slowly, but that even a small plant gives many flowers, and thinks that a full-grown specimen will be worth waiting for. *Isham* finds it good in growth and bloom, but subject to black-spot at times.

Charles P. Kilham. HT. (Beckwith, 1926.) A. R. A., 1927; P. P., 1928.

We found the flower as *Nicolas* describes it, "Splendid, a Mme. Edouard Herriot with good stem and enough petals to insure its lasting." He hints that it may be too sprawly in growth, but we found it would not grow at all. *Clement* had a similar experience. *B. & A.* check it extra good. *Bramble* finds it good but *Kirk* had poor success. *Ontario* finds it a shy bloomer with much to recommend it; only slight susceptibility to black-spot. *Flett* reports fair growth, good foliage and flowers, but shy blooming and fading color. *Middleton* had blooms of splendid form and lasting, with better color than Herriot in the early and late season, while the summer blooms fade badly. Good growth and freedom from disease. *Armstrong* praises the buds and flowers, but is dubious about the plant.

Comtesse de Castilleja. HT. (Chambard, 1926.) A. R. A., 1927.

Two years ago we would have reported it like *Hatton*, as one of the best fancy roses with fragrant, distinctive blooms at all stages, attractive foliage, and heavy canes. The second year's experience was almost a total failure. We have nothing good to report on this rose in 1929. *Decker* admires the flowers of flame and vermilion, but finds it spoils quickly in sun. *Ontario* had a weak plant and wants to try it again.

CUBA. HT. (Pernet-Ducher, 1926.) A. R. A., 1927; P. P., 1928.

It seems necessary always to compare Cuba with Padre. With us Cuba is a shade brighter, much larger, and a more robust plant, but Padre is a much better bloomer. We do not think that both are needed, although *Armstrong* and *Hieatt* of *San Diego* find them sufficiently distinct to justify having both. *Hatton's* description is characteristic of most reports: "A tall, thorny plant with foliage which black-spots; free-blooming in June and September, shy during midsummer; larger and better than Padre, which it resembles." *Free* reports poor growth and few flowers. *Decker* compares the blooms to a poppy. *B. & A.* mark it extra good. *Nicolas* calls it gorgeous but fleeting, better than Padre. *Dunning* finds the color deeper than Padre and extending to the stamens and pistils. *Ontario* thinks it ungenerous, with slight black-spot and vigorous growth. *Cross* reports it excellent, both as a bush and tree rose, but wishes it had more petals, as do we all. *Middleton* thinks the color is its main attraction and finds that Padre is better in substance, lasting qualities, growth, and continuity of bloom. *Sulliger* praises it highly for its mass effect in the garden. Several from *San Diego* report it no better than Padre. *Isham* says foliage good, vigorous plant, color and form distinct, immense flowers, upright growth.

DUCHESS OF ATHOLL. HT. (Dobbie, 1928.) A. R. A., 1927.

The contradictory reports concerning this rose has the Editor more or less dizzy. The picture facing page 56 in the 1929 Annual is characteristic of the form of this rose as it grows for us, and we call that pretty good form. Nevertheless, most of the reports condemn it for poor shape. We found it a very aggravating plant. It grew lustily and made splendid bushes the first year, with stems like ramrods, with a large, gorgeously colored bloom on the top of each, but all our plants died the following winter, which is most unusual at Breeze Hill, and the replacements made a poor showing the past summer. We are unwilling to give it up yet, but it seems to be tender and extremely susceptible to black-spot. *Nicolas* thinks it ought to be called Lady Godiva, because of its nudity, forgetting that her ladyship was adequately protected by her tresses. *Mitchell* finds it magnificent in foliage and flower, but subject to disease in wet weather. *Middleton* praises its color, growth, and splendid foliage, and says that everybody can grow it, but he is giving it up because of its lack of petals. *Lines* waxes enthusiastic over its peculiar color, which he describes as a mixture of terra-cotta, brick-dust, orange, and rose, but condemns the flower for poor form, too few petals, and too small for its stem. He praises the foliage but finds little use for foliage without flowers. *Riggs* calls it striking in color, both in bud and bloom, reports that it grows well and blooms profusely. *White* admires it after two years' growth. *Isham* praises the color, blooming qualities, shape of flower, but calls them small and reports the foliage resistant to disease. *San Diego* reports vary but agree in praising color and foliage and condemn poor form and small size. *Hampton* finds it everything she expected and the foliage particularly beautiful.

ELIZABETH OF YORK. HT. (Dobbie, 1928.) A. R. A., 1927.

*Rice* found it very vigorous, with flowers of pleasing color but very deficient in petals. *Preston* calls it a good fall bloomer. We were not impressed with it at Breeze Hill.

FONTANELLE. HT. (Hill, 1927.) A. R. A., 1927; P. P., 1927–28.

The only really enthusiastic report on this rose comes from *Hampton*. She finds it of good color, even after a day in a Texas sun. Breeze Hill discarded it several years ago for lack of individuality and poor performance. *Flett* finds it

of fair growth, good foliage, flower of good shape and a fair bloomer. *Ontario* reports it 87 per cent black-spot, which means practically complete defoliation. *Widmeyer* marks it good.

FRANK READER. HT. (Verschuren, 1927.) A. R. A., 1927; P. P., 1928.

*Lines'* report echoes our feeling on this rose exactly: "A big, bold, light-colored bloom which makes one wish to do something with it. It lacks color and seems to be crying out for deeper tones, the lack of which condemn it. It has splendid form, grows vigorously, and in every other respect is quite desirable." All reports are variations on this theme. *Furniss* and *Webster* do not object to its color. *Nicolas* calls it insipid. *Hatton* thinks there are many better, including Souv. de H. A. Verschuren. We would cheerfully give it up for Joanna Hill. *Middleton, Wertz, Isham, Ontario,* agree with *Lines. Creech* finds it good.

GAIETY. HT. (E. G. Hill, 1926.) A. R. A., 1927.

While introduced as a greenhouse forcing variety, Gaiety has slowly made its way into the garden where almost everyone admires it. Our plants have not grown extra well or produced much except in early summer and autumn, but the large, round, camellia-like flowers, of an extraordinary combination of pink, red, golden yellow, and cream, have fascinated us completely. *Hampton* boasts that she is a good talker, but has never been able to say enough for Gaiety as it grows to perfection, both in plant and bloom, and increases in beauty every day more than any rose she has ever cut, keeping its excellence until the petals fall. *O'Roark* is just a little insane about it and raves about its wonderful range of colors, reporting buds that were such a mixture of reddish orange and brown that they were almost chocolate. He finds that it endures hot sun very well. *Widmeyer* claims she likes it best of all her roses. Even *Nicolas* condescends to like it and calls it a good producer with good foliage. *Hatton* tries to describe the color and mentions orange, Indian red, and silver. With him the plant is good but not tall, a generous but not a free bloomer. He likes it. *Isham* finds it a shy bloomer with fine blossoms but poor foliage.

GLENN DALE. HW. (Van Fleet, 1927.) A. R. A., 1927.

*Hamblin* finds it distinct; *Preston* that it blooms well in Ottawa; *Ontario* that it makes tremendous growth, with pale, creamy yellow buds and semi-double, white flowers which remain on the plant four weeks, and black-spots 15 per cent. *Cross* grants it has uncommon merit, with fine foliage and abundant lemon-yellow to white flowers of pleasant, mild perfume. *Bane* compares the buds to small Tea roses. *Furniss* praises its vigorous growth and large, double flowers on good stems and claims it makes a wonderful display.

GOLDEN SALMON. Poly. (Cutbush, 1926.) A. R. A., 1927.

*Hatton* describes this as a healthy plant about 15 inches high, with a fair amount of bloom of striking color, which becomes rather tiresome. *Bramble* reports that it blooms more persistently than any other Polyantha. *New Brunswick* likes it immensely. *Hampton* objects to the name "salmon," because it is the most vivid orange she has ever seen, but *Armstrong* sums up the whole story by saying that "the color is certainly fine and we like it immensely, but oh, how we wish the old flowers would drop before they fade!" We do not believe that we want this rose at Breeze Hill. Fascinating when it opens, the blooms soon turn a peculiar slaty blue-purple which is exceedingly painful to look at.

IRISH HOPE. HT. (McGredy, 1927.) A. R. A., 1927–28; P. P., 1928.

Several years ago we were enthusiastic about this and thought it was far the best of the flock of varieties bearing the name "Irish," which are so confusing that nobody can remember which is which. Our later experience has been disappointing. Occasional flowers are very fine and show the rich mahogany-

brown which we admired so much. In the main, *Hatton's* report that it is a tantalizing rose, wonderful at times, but very poor at others, with a wonderful perfume, is about correct. *Elliot* reports good growth and foliage and free bloom. *Davis* finds it of great beauty and fragrance, but thin, and prefers Etoile de Hollande. *Ontario* reports it very vigorous and the best of the innumerable Irishes. *Armstrong* sees no value in it, and the *San Diego* report is unfavorable.

J. Otto Thilow. HT. (Verschuren, 1927.) A. R. A., 1927; P. P., 1928.

Our experience with Otto comes nearest to that expressed by *Creech*, who marks it fair and floriferous, disease-resistant, with continuous bloom, good growth and color, and comments that it is "just ordinary." There are a great many varying reports for this rose, but we confess that we lost it completely among a confusion of other varieties which it so strongly resembles that it didn't seem worth the bother to try to pick it out. There are so many pink roses of this type that it makes very little difference which one grows. We certainly will never pick out J. Otto Thilow for its individuality. *Hatton* states impressively that it is a good pink rose in form, growth, foliage, and blooming. *Cross* is taking it more and more to his heart for its clear color, vigor, and general reliability. *B. & A.* mark it very good, *Widmeyer* fair, not floriferous but disease-resistant, and poor in growth. *Webster* reports that it does not seem very free. *Dunning* admires the flower in all stages and calls it desirable. *Furniss* thinks it is marvelous for cutting, a good keeper, a most profuse and persistent bloomer, but subject to mildew. *Middleton* says it is one that anyone can grow and has all the qualities a good rose should have. *Riggs* agrees in all respects. *Isham* finds it very satisfactory. All the reports from *San Diego* are favorable. Our only beam of comfort in all these radiant benedictions is *Nicolas'* caustic remark that it is a mediocre imitation of Los Angeles.

Joyous Cavalier. HT. (Archer, 1926.) A. R. A., 1927.

Even if this were a very inferior rose, the name would popularize it to a large extent. *Pyle* is enthusiastic, and claims the name fits it to a T, and calls it highly satisfactory in all respects. *Nicolas* claims it has enough Bengal blood to be hardy and immune from disease. He, too, compliments the name. *Hatton* calls it a dashing fellow who wins the heart of anyone. Breeze Hill liked it.

Li Burés. HT. (Dot, 1928.) A. R. A., 1927; P. P., 1928.

*Armstrong's* opinion is probably the best that can be advanced for this rose. He says they have not given it a thorough trial, but in cold weather the flowers are magnificent, and if it measures up to its first favorable impression it will be a wonder. *Nicolas* calls it a mannequin displaying a new dress every time you look at it. *Pyle* describes it as "kaleidoscopic, perhaps a bit temperamental, but never fails to win admiration. The effect for table decoration is striking and unique." He thinks it fascinating in its variable colors and tints of orange, cream, ruby-red, and pink. Our experience justifies *Hatton's* opinion, that while this is a wonderful combination of colors, it leaves him cold for there is not much shape to the flower, and the foliage mildews. He remarks that the color and shape improved in the autumn. Frankly, our experience has been disappointing as far as continuity and size of bloom are concerned, but quite otherwise as to flower effect. We think it is a splendid rose to have.

Mari Dot. HT. (Dot, 1927.) A. R. A., 1927.

*Nicolas* has worn out all his adjectives praising this rose, although he admits it is a little sprawly in growth. *Armstrong* calls it marvelously beautiful, and wants a lot more from Señor Dot. *Pyle* praises its unusual color and dainty and refined effect, reports that the demand is much ahead of the supply.

MME. GREGOIRE STAECHELIN. Cl.HP. (Dot, 1927.) A. R. A., 1927.

Although described in the 1927 Annual, this variety has not yet had time to develop its real beauty in the gardens in which it is planted. *Nicolas* prophesies that if the American Rose Society ever takes another referendum, it will ring the bell. *Hatton* thinks it is certainly the last word in climbing roses, and finds it hardy and an early June bloomer. *Cross* thinks it one of the most handsome, hardy, and strong-growing climbers he knows. He admires the translucency of its petals and the large, orange-colored hips. *Pyle* marvels at the exquisite tints of the flowers, calls it "Jack's beanstalk" for growth, and praises its fruits. *Isham* thinks it a wonderful climber and most satisfactory, although a little shy of bloom at first. She hopes for many more Spanish roses equally good. *Boone* found it satisfactory in every way. *Neumeyer, Foote, Graham* evidently have not had it long enough to get good bloom. *Hamblin* reports weak growth which is strange, since both *Foote* and *Hatton* in the same district find it very vigorous. Our feeling is that if Senor Dot had given this rose an attractive, pronounceable name, nothing could stop it from winning praises of the world. As it is, we are afraid that it will never achieve the popularity it deserves.

MRS. A. R. BARRACLOUGH. HT. (McGredy, 1926.) A. R. A., 1927; P. P., 1928.

This is a favorite variety with curiously different behavior in regard to growth. *Hatton* calls it a provoking plant with most of the bloom on the new canes from the base, while the old wood seems to stand still. *Nicolas* says it should be planted in the leper ward with Los Angeles. *Pyle* says, "Ouch! A nurseryman cannot afford such a cantankerous doer. It is lovely, but an expensive luxury." Barring these unfavorable reports, twenty other correspondents are almost unanimous in praising the plant in all respects. The growth seems to be much better on the Pacific Coast than in the East, but *Furniss, Wertz, Middleton,* and *San Diego* report mildew and occasional weak stems. The latter fault is also referred to by *Schirmer,* while *Peter* found the stems strong. *Flett, Ontario,* and *Webster* report a slight stinginess in bloom, and *Preston* finds it a weak grower. *O'Roark* thinks the color is washy, *Isham* thinks it splendid, and *Bane* says it is becoming more popular every year. *Simonson* reports magnificent flowers in Florida, although only slight summer bloom. At Breeze Hill, it has been simply magnificent.

MRS. BEATTY. HT. (B. R. Cant, 1926.) A. R. A., 1927; P. P., 1928.

The reports on this rose show remarkable variation in performance in different sections. *Nicolas,* reporting from the same general region as Breeze Hill, calls it a "false alarm," which we think is a high compliment. It did not even *arouse* us! *Webster* and *Ontario,* farther north, find something good in it, especially its color which they regret fades quickly. On the Pacific Coast we find *Isham* reporting it difficult to establish, but *Armstrong* considers it the best light yellow with practically no faults, but both *Middleton* and *Lines* burst into raptures, praising its form, its color, growth, foliage, and bloom.

MRS. W. E. NICKERSON. HT. (McGredy, 1927.) A. R. A., 1927; P. P., 1928.

The Breeze Hill experience seems to be characteristic. The plants make long-stemmed growth, with large, well-formed, attractively colored flowers which would be improved by a few more petals. The stems are weak-necked at times, and the blooms magnificent in early summer and autumn. The midsummer flowers are likely to be thin, few-petaled, and of muddy color. This opinion is shared in the main by *Free, Creech* who calls it lovely, *Bane* whose adjective is "aristocratic," and *Cross* with whom it is a decided favorite. *Isham* reports success, *Middleton* praises its perfect form, but admits a little mildew. *Ontario* is non-committal, but reports 23 per cent black-spot.

NORMAN LAMBERT. HT. (McGredy, 1926.) A. R. A., 1927; P. P., 1928.

*Middleton's* statement: "A rose everyone can grow, but, alas, it has too few petals to give continued pleasure. It is one of those roses that lacks *form* in the true meaning as applied to a rose bloom. I am giving it up because I never can get it to last long after cutting, nor does it retain its color," is a concise summary of the eleven reports received. A few tried to be nice to it. *Foote* thinks it may improve the second year. *Hatton* considers it the best of its type. *Widmeyer* likes it. *San Diego* concedes it as good color before it fades, and *Nicolas* calls it a cool-weather rose with elusive colors. *Ontario* thinks it is worth trying, but *Webster's* opinion is our own. He remarks tersely, "Growth poor, bloom thin, color fleeting. Discard."

PRINCESS ELIZABETH OF GREECE. HT. (Chaplin, 1926.) A. R. A., 1927; P. P., 1927–28.

*Hatton* calls it another good copper-orange variety with possibilities. *Ontario* found it vigorous but a shy bloomer. *Middleton* thinks it similar to Independence Day, but needs more petals. It did not register at all with us at Breeze Hill.

RAPTURE. HT. (Traendly & Schenck, 1926.) A. R. A., 1927; P. P., 1928.

*Creech, Hampton,* and *Cross* agree with us that it is a better rose in color than Mme. Butterfly. It grew magnificently at Breeze Hill and bloomed most profusely. In a small garden there is no need for Rapture, Mme. Butterfly, and Ophelia; right now we think that the one retained should be Rapture.

ROYAL SCOT. HT. (Dobbie, 1928.) A. R. A., 1927.

*White* thinks it pretty good, perhaps the best of its class. *Hatton* compares it to Lord Lambourne in color and floppiness, but condemns its form. We found it very bright and cheerful, but absolutely no good as a flower. Wilhelm Kordes expressed our opinion exactly when he said, "If the blooms were borne in clusters, like a Polyantha, it would be worth having." As it is, it is worthless.

SIR DAVID DAVIS. HT. (McGredy, 1926.) A. R. A., 1927; P. P., 1928.

Three years ago we prophesied that either Sir David Davis or Irish Hope would prove to be the best red rose from the introduction of Etoile de Hollande up to that time. Irish Hope has disappointed us each year since, leaving Sir David Davis master of the field. *Flett* credits it with good growth, foliage, form and blooming. *Creech* thinks it is fair in the same respects. *Ontario* almost becomes enthusiastic and recommends it for trial. *Webster* calls it very satisfactory, invariably of good shape, and little fading. *Preston* finds it a good grower, but blooms intermittently all season. *B. & A.* check it very good. *Pyle* commends it as a faithful performer. *Lines* says it is welcome in his garden and damns it with faint praise. *Isham* calls it slow but satisfactory. *San Diego* makes a mixed report, but seems to agree that it is an excellent garden rose on heavy soil.

SOLARIUM. HW. (Turbat, 1925.) A. R. A., 1927; P. P., 1928.

This is another hardy climber which apparently has not been out long enough to justify full reports. *Ontario* says it is hopeless. *Neumeyer* reports extra-good color, but few flowers. It has not succeeded with *Isham. Hamblin* does not think it much different from Hiawatha or Romeo, while *Nicolas* prefers it to The Beacon. It has been rather lackadaisical at Breeze Hill for the past three years, and we have been unable to work up any excitement over it.

SOUVENIR D'ALEXANDRE BERNAIX. HT. (Bernaix, 1926.) A. R. A., 1927.

*Pyle* advises us not to overlook it, and is sure its habit and beauty will please the expert. *Foote* found it a free bloomer with beautiful dark red flowers on stiff stems, and foliage free from disease. *Nicolas* thinks it is a dangerous competitor of Etoile de Hollande, with fuller but not so fragrant flowers, and a constant producer. The Breeze Hill plant did not do well this year.

## ROSES OF 1928

Among the roses of 1928 it does not seem safe to disregard any of the following, no matter how meager the reports:

ABOL. HT. (Evans, 1927.) A. R. A., 1928.

All correspondents commend this rose for fragrance and most of them praise its form, *Nicolas* calling it a "water-lily rose." *Middleton* giving it his approval for shape and resistance to damage by rain, and *Ontario* remarking on its resistance to disease. It was not very vigorous for anybody, and we found it decidedly unwilling to grow, although we are inclined to believe that Abol is better than Marcia Stanhope and Nuntius Pacelli, both fragrant white roses. *Ontario* reports that its buds are pink, and *Foote* remarks on its creamy color in autumn. With us it was pure white at all times.

AMAMI. HT. (Easlea, 1927.) A. R. A., 1928.

*Hatton* reports good size, good shape, and a soft peach-pink shade that is very attractive. Slender canes, hardy, strong enough to support the large blooms; free-flowering. We imported plants from England in 1928. They made vigorous growth and produced very long buds and blooms somewhat like Mrs. W. E. Nickerson, but much lighter in color and shaded with cream. Its exquisite tints and form won our hearts completely. With us the stems were strong and wiry. We lost our plants in the winter and were unable to replace them last spring. We certainly hope to get it again, because it is one of the most marvelously beautiful roses we have ever seen.

CLARA BOW. Cl.HT. (Padella Rose Co., 1927.) A. R. A., 1928.

*Armstrong's* report verifies our experience. He says "Supposed to be similar to Climbing Golden Emblem, but the latter climbs vigorously and blooms freely, while Clara Bow does neither." *Cross* reports some of the finest, purest yellow blooms of any rose, but weak growth. In two years it has grown less than 3 feet at Breeze Hill. Nevertheless we have cherished it for its beautiful flowers. If Climbing Golden Emblem is better, we want it!

CLIMBING GOLDEN EMBLEM. HT. (Armstrong Nurseries, 1927.) A. R. A., 1928.

*Armstrong* reports that it climbs 100 per cent and is exceedingly vigorous, and claims that those who like the bush Golden Emblem will be certain to like the climber. Between this and Clara Bow we certainly ought to get a good yellow climbing variety. But—!

DARDANELLE. (Vestal, 1927.) A. R. A., 1928.

*Boone* reports flowers with the highest centers yet seen, full-petaled, free opener, splendid fragrance, stiff neck, very free bloomer, hardy plant, excellent leafage, lasts unusually long when cut, color like Mrs. Charles E. Russell, and he wants more of them.

DAVID O. DODD. (Vestal, 1927.) A. R. A., 1928.

*Widmeyer* checks it good in floriferousness, disease-resistance, continuity of bloom, growth, and hardiness.

DIANA CANT. HT. (B. R. Cant, 1928.) A. R. A., 1928.

*Armstrong* says another of the Ophelia type similar to Mme. Butterfly and Ivy May, and probably no better. *Ontario* found the plants moderately vigorous and poor bloomers.

DISTINCTION. Poly. (Turbat, 1927.) A. R. A., 1928.

*Foote* reports it something like Else Poulsen in color and form but not so tall.

DR. HERBERT HAWKESWORTH. HT. (Bees, 1927.) A. R. A., 1928.

Reminds *Foote* of Friedrichsruh, but taller, with fair growth, flowers dark crimson, almost black in the center.

E. G. HILL. HT. (Hill, 1928.) A. R. A., 1930.

All reports are guardedly favorable. *Armstrong* expresses the general feeling when he says, "We want to give this rose a good chance because it looks as if it would be a very fine red if it does not fade out too much." *Sulliger* calls it one of the best, if not the best red rose he has ever grown. The foliage was absolutely free from disease during the worst season for mildew ever experienced in the Pacific Northwest. It made good growth, with abundant bloom of unfading crimson. *Hampton* found that it made good wood and plenty of bloom. *McGalliard* found it did very well as also did *O'Roark*, who reports that the dazzling scarlet blooms showed no purple and had no tendency to ball, although the fully open bloom was somewhat flat. *Kirk* felt that the color is somewhat dull. He had fair growth and bloom. *Hatton* liked it very much but states that it has no perfume, a lack which we had not discovered.

ELIZABETH W. ADAM. HT. (Adam & Craigmile, 1926.) A. R. A., 1928.

*Foote* reports "Very good growth, fifty petals, pink and crimson flowers of lovely shape. A fine rose."

EMILY DODD. HT. (A. Dickson, 1927.) A. R. A., 1928.

*Webster* calls it a very satisfying creamy white rose which is truly a source of inspiration in the bud and half-open stage. It opens cleanly for him and withstands wet weather better than any white variety. *Ontario* feels that it lacks fullness. *Mitchell* reports attractive flowers and good foliage. We liked its flaring, graceful, creamy white buds with tan and rosy suffusion. It has a curious habit of opening one petal wide before the bud fully expands and allowing it to droop when the flower opens.

EVEREST. HT. (Easlea, 1927.) A. R. A., 1928.

A great favorite with *Foote*, who reports very large, beautiful flowers of ivory-white and yellow, produced freely early in the season, but sparingly thereafter. She also remarks upon the tall growth which bears out *Nicolas'* remark that it is a larger and fuller Frau Karl Druschki but not so everblooming. *Nicolas* also finds that it balls in wet weather. *Flett* reports June bloom only. *Webster* finds it of awkward habit, shy-blooming, and useful for the exhibitor only. *Mitchell* calls it unsatisfactory because it runs to wood. *Middleton* fears that it will be a rival for his favorite Lemon Pillar and says it is really a pillar rose. *Armstrong* advises that it looks promising. Evidently Everest is a Hybrid Perpetual introduced as a Hybrid Tea, and should be so considered.

FANCY. HT. (Van Rossem, 1928.) A. R. A., 1928.

Attractive color, according to *Foote*, good early in the season but not later on; growth fair. She was not impressed by it.

FASCINATION. HT. (Chaplin, 1927.) A. R. A., 1928.

*Foote* reports it a wonderfully free bloomer, a fine pink and yellow rose with tall growth. *Mitchell* liked the color and reports good growth but had some black-spot. *New Brunswick* is much impressed by it. *Ontario* did not have enough blooms and too much black-spot.

F. M. VOKES. HT. (Hicks, 1927.) A. R. A., 1928.

*Ontario* reports that apparently this variety is here to stay; 17 white blooms per plant, minus fragrance, very vigorous, black-spot low, only 4 per cent; worth trial. *Hamblin* lists it among his "thornless" varieties.

Frau Dr. Schricker. H.Ben. (Felberg-Leclerc, 1927.) A. R. A., 1928.

*Nicolas* calls it a Bengal, an A No. 1 bedder of the most profuse and continuous blooming habit, with exhilarating perfume.

Hadley Elatior. HT. (Teschendorff, 1927.) A. R. A., 1928.

This was reputed to be more vigorous than Hadley and not so lanky as Climbing Hadley. *Hatton* found it an upright plant with healthy foliage and free-blooming, but lacking the quality of Hadley. He thinks it is worth trying another year.

Hilda. HT. (B. R. Cant, 1928.) A. R. A., 1928.

Evidently similar to Betty Uprichard, but *Foote* reports it is not yet a rival to that sterling variety. She finds it an interesting rose with fair growth, full, salmon-pink and carmine flowers that are very attractive. *Ontario* had difficulty in getting it to grow and thinks it might be good if once established.

Irish Courage. HT. (McGredy, 1927.) A. R. A., 1928; P. P., 1928.

*Ontario* reports 12 pale salmon blooms without fragrance, lack of vigor, and traces of black-spot. *Armstrong* likes it, but the color is not outstanding. The trouble with this rose is the confusion caused by its name. It is extremely difficult to keep that batch of McGredy's "Irish" roses distinct in one's mind, especially since there was a fairly well-recognized class of "Irish" roses of the type of Irish Fireflame, which were called the Irish Singles. Irish Courage may be a good rose, but it will never amount to much. The name kills it.

J. C. Thornton. HT. (Bees, 1926.) A. R. A., 1928.

*Ontario* reports 12 crimson blooms on moderately strong plants the first season.

Jeanne Saultier. HT. (Laperrière, 1927.) A. R. A., 1928.

*Mitchell* reports lots of good buds and flowers with lasting color and good foliage. *Foote* says the color is a charming salmon-rose, reverse reddish pink. Growth vigorous and apparently little subject to black-spot.

Joanna Hill. HT. (J. H. Hill Co., 1928.) A. R. A., 1928.

*Armstrong* likes it. *O'Roark* finds it a Mme. Butterfly bush with an orange-yellow bud somewhat shorter than Sunburst; very double flowers with an orange center paling to cream. He praises it for its fragrance. *Kirk* reports vigorous growth, healthy foliage, moderate blooming, slight perfume, almost perfect form. *Hatton* finds it very attractive, of good size, form, fragrance, and lasts well. We thought a good deal of it at Breeze Hill, although it consisted entirely of bloom-shoots which when cut left very little of the plant.

Julia, Countess of Dartrey. HT. (Campbell-Hall, 1927.) A. R. A., 1928.

*Middleton* praises the form and lasting qualities of the bloom. He gets canes over 3 feet long, with blooms breaking from each shoot; short stems; not much disease. He does not believe it will be a favorite unless the canes are tied in a horizontal position. *Flett* dismisses it with a remark that it looks like a Hybrid Perpetual. *Armstrong* can see no reason for growing it at all. *Lines* does not like the scalloped edges of the flowers, but reserves judgment, although he has seen nothing about it that he likes except the color. *New Brunswick* praises it. *Ontario* calls the flowers insignificant, growth very strong. *Foote* says it is very tall for a Hybrid Tea; pure Tyrian rose, large, fragrant, free-blooming, continuous, and all the good qualities of a fine rose. We have an idea that it will turn out to be a fair Hybrid Perpetual.

Julien Potin. HT. (Pernet-Ducher, 1927.) A. R. A., 1928.

We have not had Julien Potin at Breeze Hill. All the plants we have got under this label turned out to be Ville de Paris, and we wonder if the varying reports on this rose are not occasioned by similar experience in other gardens

There are two distinct sets of reports, one which compares Julien Potin with Souvenir de Claudius Pernet, and the other which compares it to Ville de Paris. Considering the vast difference between Souvenir de Claudius Pernet and Ville de Paris, this might indicate that some nurseries have their stock mixed up. None of the reports is very favorable. The name Golden Pernet, which one introducer tried to fasten upon this rose, evidently hurt it by inviting immediate comparison with established plants of Souvenir de Claudius Pernet. Many of our reports take it as a challenge and assert that Potin is not any more golden than Claudius Pernet. *White* says it comes greenish white and yellow with him. All the *San Diego* reports are unfavorable. *Isham* finds it difficult to establish, but the flower is good. *Armstrong* finds it inferior to Claudius Pernet. *Riggs* is enthusiastic over it, calls it an ideal exhibition rose, and reports that it was given the Gold Medal at the International Rose Test-Gardens at Portland, 1929. *Lines* thinks it is an improvement in form and behavior on Claudius Pernet, but inferior in color. *Wertz* observed it was good in other gardens. *Middleton* finds it much better than Claudius Pernet, but not so vigorous, and thinks it is Pernet-Ducher's best yellow rose. *Greef* makes a similar report. *Schirmer* finds it a big disappointment. *O'Roark* finds it no better color than Claudius Pernet, but has a better center and is a much more prolific bloomer. *Ontario* finds it inferior to Claudius Pernet, black-spots 36 per cent. *Webster* ranks it highly and considers it better than Claudius Pernet. *Rice* finds it a fine flower, but not vigorous, and with *Davis*, in the same city, it grew well. *Dunning* thinks it is desirable. *Nicolas* considers it valuable only as a maiden. *B. & A.* check it as extra good. *Decker* thinks it the most wonderful yellow rose he ever had, and it is *Hatton's* favorite yellow; hardy, good foliage, moderate bloomer. *Clement* compares it to Ville de Paris, and reports it discolors. *Foote* prefers Ville de Paris. *Elliot* finds it blooms continuously but sparsely. Evidently the Pacific Northwest is the only place where this rose is popular.

KARDINAL SCHULTE. HT. (Leenders Bros., 1926.) A. R. A., 1928.

*Ontario* reports 14 well-formed, fragrant, scarlet blooms on a strong plant with little black-spot. They like it.

KATHERINE COOK. HT. (Cook, 1927.) A. R. A., 1928.

This is one of John Cook's roses which got mixed up with Dorothy Dix and Mrs. E. M. Gilmer in the naming. In the confusion none of the roses was properly disseminated. *Kirk* reports that it is a very vigorous, healthy, free-growing rose of clear crimson, very full, somewhat globular in the bud, often opening flat. Its vigor and freedom of bloom make it an outstanding variety. Any untested rose of John Cook's is worth investigation, since the strain which produced Radiance was still at his finger-tips.

KONIGIN LUISE. HT. (Weigand, 1927.) A. R. A., 1928.

*Foote's* experience was similar to ours. She reports that it is said to be an improved Kaiserin Auguste Viktoria, but so far she was not greatly impressed with it. The blooms are very full and do not always open well.

LA MIE AU ROY. HT. (Bernaix, 1927.) A. R. A., 1928.

*Foote* calls it an interesting, large saffron-yellow, with fine foliage, and it did well.

LADY CANADA. HT. (Dale, 1927.) A. R. A., 1928.

This is the famous "patented" rose which *Flett* tells about in the Rose Notes. He reports growth very good, foliage fine, flowers full and of good shape, but frequently spoiled at the edges.

LADY FORTEVIOT. HT. (B. R. Cant, 1928.) A. R. A., 1928.

*Armstrong* finds it almost exactly like Angèle Pernet but a trifle lighter and

[illegible]

Lady Mary Fitzwilliam. HT. (A. Dickson, 1937.) A. B. A., 1938.

[illegible]

Lemesurier. HT. (Dickson, 1937.) A. B. A., 1938.

[illegible]

Letizia Primo. HT. (Thomas Evans sport by Dickson, 1937.) A. B. A., 1938.

[illegible]

Lord Constantine. HT. (A. Dickson, 1937.) A. B. A., 1938.

[illegible]

Lovely Queen. HT. (Dickson, 1937.) A. B. A., 1938.

[illegible]

Mrs. Sam McGredy. HT. (McGredy, 1937.) A. B. A., 1938.

[illegible]

Mrs. Wemyss Quin. HT. (McGredy, 1937.) A. B. A., 1938. A. R. S., 1938. P. P., 1938.

[illegible]

Mrs. Winthrop Rockefeller. HT. (McGredy, 1937.) A. B. A., 1938.

it one of the best all-round roses. *Furniss* finds words inadequate to express his appreciation, while *Middleton* complains of mildew, lacking good form, but considers its brilliant color its greatest virtue, and that good flowers are delightful. *Lines* mentions poor form but finds it desirable for brilliant color, shapely bush, and excellent foliage. *Isham* considers it fine in all respects. *San Diego* finds it vigorous, floriferous, and of good color, but stems too short for cutting. *Hampton* says it makes a fine bed. In the main, we agree with all these reports. At times it is too thin and it fades rather badly, but at its best it is splendid, and the bush always makes a good appearance in or out of bloom.

MARION CRAN. HT. (McGredy, 1927.) A. R. A., 1928.

This rose wins on its color alone. *San Diego* finds it fades too quickly. *Isham* reports black-spot, but likes the color in spite of its imperfect shape. *Middleton* advises growing it on a standard. *Sulliger* thinks it most desirable. *Ontario* reports slight black-spot, 20 blooms per plant, vigorous, striking, and worth trying. *Davis* becomes ecstatic, calling it a gorgeous little thing, exceptionally free-flowering, with good foliage, free from disease, and a valuable addition in spite of a slightly weak neck. *Dunning* thinks it rivals Talisman in color, but lacks vigor, and requires special care. *Nicolas* calls it "a two-hour rose with weak foliage." *Cross* thinks it is fascinating, but is dubious about its vigor. *Free* says tersely, "Fine color, poor growth." *Hatton* finds it lasts well when cut, likes its rich, fruity fragrance, and calls it a shy bloomer. *Foote* remarks on its fine, unique color, but admits susceptibility to disease. *Elliot* reports black-spot but excellent otherwise, and prefers it to Talisman. We did not care for it at all at Breeze Hill. Its color seemed light and spotty, the flowers weak-necked and inclined to be flabby. The bush was a mean, disreputable grower.

MARQUISE D'ANDIGNE. HT. (Leenders Bros., 1927.) A. R. A., 1928.

*Nicolas* marks it good in every respect, with a unique grenadine color and chalice form.

MARS. HT. (Chaplin, 1927.) A. R. A., 1928.

*Ontario* reports medium growth, 20 per cent black-spot, 9 small coral-pink blossoms, and remarks that they do not know why it was distributed commercially. Neither do we. It is a miserable little runt, of no value whatever.

MEVROUW G. A. VAN ROSSEM. HT. (Van Rossem, 1926.) A. R. A., 1928.

The Breeze Hill experience is pretty well summed up in *Cross's* statement that "It will be a grand rose if it can gain more vigor of growth and fullness of bloom. The buds of some flowers are gorgeous in rich colors, from orange to yellow fading pink. Perhaps it would do better in partial shade." *Foote* had it do well, and considered it one of the most beautiful roses of the year. Mostly free from disease. *Hatton* calls it very desirable. He likes its rich, fruity fragrance, freedom from disease, erect, stiff stems, and its attractive color which is better retained than most of its type. *Pyle* calls it bizarre and highly colored, and one of the better roses in its class, although a little lacking in vigor.

MISS ROWENA THOM. HT. (Howard & Smith, 1927.) A. R. A., 1928.

In most respects the Breeze Hill experience parallels that of *O'Roark*, who states that growth, foliage, and blooming resemble Los Angeles. The bud is very large and coppery old-rose, with open blooms about as full as Radiance, and immense petals, but does not last long. Nothing above the ordinary. *Nicolas* is very unfavorable. He says its neck is weak, foliage too small, in growth a deteriorated Radiance, but a better bloom. He thinks Felicity is by far superior. *Armstrong* calls it prolific but prefers many other pink roses. *San Diego* finds that it grows well but has a muddy color and weak stems. *Isham* thinks it is a new color, praises its size, and considers it satisfactory in all

respects. *Lines* does not think it is startling in color, but a strong, free bloomer with good foliage. Flower gives the impression of inferior form because of the somewhat loose petals. *Furniss* thinks it is a great rose with huge flowers on long stems, good growth, plenty of bloom, fair foliage. *Schirmer* calls it a beautiful rose, better than Los Angeles and Radiance, and the very best and largest rose in his garden. *Cross* thinks it deserves high rank. *B. & A.* check it very good. *Hatton* rates it as one of the most satisfactory of recent years. He praises its strong, healthy plant, and reports that the smallest flower was 4½ inches in diameter and the largest 5¾ inches. It was somewhat fragrant, but he had no bloom for four weeks during July and August, although free both before and after that period. *Elliot* reports good growth, moderate foliage, large and abundant blooms, few in August. The last word has not been said about this rose. When two such good rosarians as Mr. Howard and Mr. Eisele praise it as they have done, the Editor will reserve judgment until he knows more about it. The Breeze Hill experience has been frankly disappointing.

Mlle. Bep van Rossem. HT. (Van Rossem, 1926.) A. R. A., 1928.

*Hatton* writes a prize essay on this variety, "A bold little flapper who 'makes up' in the open. The bud opens flat at once, showing a mass of very short petals, and looking more like an immature calendula, or aster, than a rose. The bloom slowly proceeds to grow into a beautiful, gold and yellow, fully double flower with a mass of red stamens and pleasing Pernet fragrance. Tall, but not a bushy grower." *Ontario* had no such luck. They report 3 fragrant, deep lemon-yellow, semi-double flowers which faded.

Mme. Chamouton-Murgue. HT. (Chambard, 1925.) A. R. A., 1928.

*Foote* reports large and very good flowers of carmine-orange, shaded vermilion. Two years' record at Breeze Hill is simply "Bright red, plant not strong, seldom in bloom."

Mme. Henri Gravereaux. HT. (Barbier, 1926.) A. R. A., 1928.

*Webster* reports favorable impression the first year.

Mme. Roger Douine. HT. (Reymond, 1926.) A. R. A., 1928.

*Mitchell* records it as very floriferous, a moderate, strong grower which is very promising.

Nuntius Pacelli. HT. (Leenders Bros., 1927.) A. R. A., 1928.

*Armstrong* reports first flowers good, but the plants too small yet to know what it will do. *Nicolas* considers it the best white bedding rose and praises its fragrance. We liked it tremendously at first, but had poor luck with it last year. We had difficulty in distinguishing it from Abol, but intend to try it again.

Oliver Mee. HT. (H. Dickson, 1927.) A. R. A., 1928.

*Armstrong* calls it a modest rose in color and number of bloom, but he likes its delicate shell-pink shades and splendid foliage. We gave up trying to tell it from dozens of other pink roses early in the season, and neither know nor care what happened to it.

Paloma Falco. HT. (Dot, 1928.) A. R. A., 1928.

*Nicolas* calls it very distinct, with immense, long-lasting blooms. Our record is as follows: "1928, two plants from Spain, both very weak, flowers large, very double, similar to color of Etoile de Feu, but not so intense, lovely ruffled shape. Like it. Plants not strong. 1929, a good double flower, but wonder if it is better than Mari Dot; neither has done well here."

Patience. HT. (McGredy, 1927.) A. R. A., 1928.

Again, friend *Hatton* becomes enthusiastic. He calls it one of the finest roses in existence. The buds are long and shapely, the color of the open bloom clear

and lasting. He finds pleasing fragrance, good size and freedom, strong plant, but foliage subject to black-spot. *Free* thinks it is good but shy. *Mitchell* calls it satisfactory, but mentions black-spot. *Rice* likes the color and growth, but thinks it does not have enough petals. It will have to improve in 1930 or *Webster* will discard it. *Middleton* grants it perfect form which is strange when matched with *Rice's* report. He says it makes a splendid standard. *Riggs* thinks it will be a useful rose for many years to come. *Armstrong* states that it probably produced more perfect buds to the plant than any other variety he grew last season. *Isham* thinks it is good for bedding, and calls the flowers lovely, loose, and charming pink. *San Diego's* reports are favorable. *Hampton* praises it as more double than Padre, a better bush, and more roses all the time. We grew this rose two years at Breeze Hill, and sorry to say, our notes are very brief and to the point. They are simply "Rotten." Try as we will, by no effort of the memory can we bring back a picture of the flower.

POLLY. HT. (Beckwith, 1927.) A. R. A., 1928.

*Foote* thinks it is a fine rose like a yellow Ophelia, with extra-good growth and blooming qualities. *Ontario* says that it fades white, and *Armstrong* thinks it is pretty good.

ROSE HILL. HT. (Hill, 1928.) A. R. A., 1928.

*Furniss* says it is the best sport of Columbia he has found. *Greef* thinks it is a worthy offspring of Columbia of a darker shade. *Neumeyer* thinks it is a better flower than Columbia, but just as hard to grow. *McGalliard* finds it satisfactory. *O'Roark* finds it is no consistent improvement. *Bramble* thinks Briarcliff is better, but *Kirk* observes "one-half tint darker than Columbia, one freckle less, one-half per cent better form, just the same and just as moody in growth and blooming."

RUSKIN. H.Rug. (Van Fleet, 1928.) A. R. A., 1928.

*Hamblin* thinks it the best dark red Rugosa. An enormous plant, extremely hardy and robust. *Preston* says it blooms well in July and September. *Cross* finds it adaptable as a bush or pillar, with deliciously scented blooms of the color and form of Hybrid Perpetuals, and an important addition to the Rugosa class. *Isham* finds it a shy bloomer, but with lasting qualities, and thinks it is a good Rugosa. The Breeze Hill experience is similar to that of *Cross*.

SOUVENIR DE NUNGESSER. HT. (Croibier, 1927.) A. R. A., 1928.

*Foote* reports very good growth the first year, large red and carmine flowers on stiff stems, free from disease.

SUNSHINE. Poly. (Cutbush, 1927.) A. R. A., 1928.

*Foote* reports that it is described by its name, and is pretty and of low growth.

TALISMAN. HT. (Montgomery, 1929.) A. R. A., 1928.

There are so many reports on Talisman and they vary so widely that it seems best to quote from all of them. *Elliot* found moderate growth and no disease. *Foote* was disappointed in the early bloom, but had plenty of lovely flowers in the autumn, though not to be compared with those grown under glass. *Clement* reports all the faults of Souvenir de Claudius Pernet, with more poor buds than good ones. Sometimes very beautiful. *Hatton* finds the flowers splendid if cut in the bud and opened indoors; outdoors they vary and fade so badly in the sun that it is a disappointment after seeing them inside. It is very fragrant and free-flowering. *Mitchell* thinks it will be satisfactory outside but the flowers are a gamble, some satisfactory and some with small, imperfect petals. *B. & A.* check it very good. *Nicolas* cannily reserves his judgment, but thinks it is a cool-weather variety if the loudly trumpeted colors are to be expected. *Cross* notes a bewildering range in excellency of bloom and variable

color, some flowers matching the famous illustration. The plants are not strong, but he thinks that due to over-propagation. *Fay* says it does not like the heat. *Kirk* found excellent growth, healthy foliage, with blooms in form and color like the well-known picture. *Davis* was delighted with its color and found the plant disease-resistant. He thinks it will be popular, but reports only moderate growth. *Dunning* says it is a wonderful combination of colors, beautiful in bud when half-open, but semi-double and flat after the first day, with stamens dark brown; and inclined to be deformed late in the season. He prefers Angèle Pernet. *Rice* praises the color. *Webster* thinks it is a flop outdoors, but possibly due to over-propagation. He does not regard it favorably. *Conners* states that it has proved to be all that is claimed for it. He is more than pleased with it, although it does fade in July and August. It has been resistant to disease. *O'Rourk* calls it a red and yellow prize package. He had flowers exactly like those shown in the illustration in the 1928 Annual, and "What more can one ask?" quoth he. *McGalliard* recommends it. *Schirmer* was a little disappointed. *Furniss* likes it and reports wonderful foliage and flowers of unusual color. *Isham* had wonderful color in bud and bloom, and thinks it promises well. *Armstrong* will grow it for color, size, and fragrance, but wishes that many of the blooms were not malformed and that it would not mildew so badly. It blooms better than any other rose *Hampton* has, and she thinks it is simply perfect. At Breeze Hill, the plants made moderate growth, bloomed perpetually, and had good foliage. The flowers were occasionally a very fine color, fully equal to the illustration in the 1928 Annual, but much of the time they were pale and disfigured by a black center inherited from Souvenir de Claudius Pernet. Superb in autumn.

THELMA. HW. (Easlea, 1927.) A. R. A., 1928.

*Hatton* calls it a nice pillar rose with attractive foliage, free from disease, with semi-double pink flowers in clusters. He thinks it looks good. It bloomed well for us at Breeze Hill, in large sprays of flowers about 2 inches across, of almost the same shade as Mrs. Charles Bell. We think it is going to be a very attractive climber.

THERESA MORLEY. HT. (Howard & Smith, 1928.) A. R. A., 1928.

*Armstrong* thinks it is pretty good, but too much like many other pink roses. We feel the same way about it, and we are too bored with the multitude of pink roses to bother picking this one out.

TRILBY. HT. (Dobbie, 1927.) A. R. A., 1928.

*Preston* reports it a good grower and a consistent bloomer. It was all that for us, but we found that Svengali was badly needed.

W. A. BILNEY. HT. (Easlea, 1927.) A. R. A., 1928.

*Foote* calls it a very beautiful rose with large yellow and cerise petals. It is one of her favorites. That means a great deal. *Hatton* calls it a pretty semi-double rose of pale pink and primrose, with frilled petals opening like a water-lily; slightly fragrant, and a shy bloomer. *Ontario* likes it in spite of a slight infection of black-spot. *Middleton* is sorry it has no more petals and thinks it rather like Mme. Mélanie Soupert. Attractive color, satisfactory growth, and no disease. *Armstrong* reports an enormous flower of eighteen petals, very lovely color—a soft apple-blossom-pink somewhat like that of the Australian climber, Gwen Nash. We indorse Armstrong's report, and add that it also resembles the color of another Australian, Daydream, and reminds us of the exquisite Amami.

WALTHAM CROSS. HT. (Chaplin, 1927.) A. R. A., 1928.

*Ontario* reports 19 fragrant red flowers; hardy, 10 per cent black-spot, and a good bedder.

## ROSES OF 1929

We include here all the reports received on new roses introduced in the past year.

ADELE CROFTON. HT. (A. Dickson, 1928.) A. R. A., 1929.

*Ontario* reports fairly weak plants, averaging two small, yellowish salmon-pink, semi-double, fragrant blooms per plant the first season. *Armstrong* found well-shaped buds and flowers of a lovely soft shade of salmon-orange, growth uncertain as yet. At Breeze Hill, we were enthusiastic over the first flowers we saw, and were especially taken by the beauty of the long, elegantly tapered buds. The color was intense orange-saffron and deep yellow, with a slight tinge of Angèle Pernet color. The plant grew vigorously, but scarcely bloomed in summer. We had a few fair flowers in October and November. The plants kept their foliage fairly well in a bed which was practically defoliated by black-spot.

ADVOCATE. HT. (A. Dickson, 1928.) A. R. A., 1929.

*White* calls it a "dud."

APHRODITE. HT. (Easlea, 1928.) A. R. A., 1929.

*Foote* reports large, semi-double flowers of fine color, reddish coral and gold. Good growth.

AUGUST NOACK. HT. (Kordes, 1928.) A. R. A., 1929.

*Foote* reports color similar to Mrs. C. W. Edwards, fine foliage and growth. The plants which we imported from Germany did not grow well, but we had several well-shaped, cherry-red flowers.

BLOOMFIELD SUCCESS. Cl.HT. (Thomas, 1929.) A. R. S. Handbook, 1929.

*Cross* is doubtful as to its "success" with him. He hopes it will improve as the plant matures. Breeze Hill plants, now two years old, have scarcely grown, the flowers are good color, fairly good shape. We have given it a good place and hope for the best.

CHAPLIN'S PINK CLIMBER. HW. (Chaplin, 1928.) A. R. A., 1929.

*Nicolas* calls it a wonderful new pillar. Our young plant grew most vigorously but did not bloom. Another year's growth will be necessary.

CHERRY. HT. (McGredy, 1928.) A. R. A., 1929.

We are rather fond of Cherry, which produced a quantity of medium-size, very fragrant flowers of pretty good shape, although rather ordinary color. *Foote* found it a poor grower, *Ontario* a poor bloomer, and *Flett* fair growth, good foliage, full flower, good shape, freely produced, highly perfumed.

DIRECTOR RUBIO. HP. (Dot, 1928.) A. R. A., 1929.

*Pyle* says it is distinguished by its brilliant fresh pink color and captivating cheeriness. He is very fond of it. *Nicolas* calls it his pet, a "he" rose, hardy as an oak, and simply handsome. In growth it reminds us of H. V. Machin, Mrs. Wakefield Christie-Miller, and Mme. Albert Barbier—stiff, stubby and erect, each stem topped by flaring, flat, brilliant pink flowers of enormous size. It is exceedingly handsome, but there are long periods without flowers.

EDITH NELLIE PERKINS. HT. (A. Dickson, 1928.) A. R. A., 1929.

The Breeze Hill experience parallels *Armstrong's:* "Inside of the petals light blush-pink, outside deep salmon-pink, nicely shaped buds, fairly good open flowers, promising but not startling." In addition, we found it a free bloomer, with good foliage and tall growth, agreeing with *Elliot* and *Mitchell*. *Foote* calls it a lovely variety and a good garden rose. *Hatton* finds it very striking, with a spicy fragrance. *Nicolas* revises his opinion of last year and recommends it to replace Mrs. W. C. Egan. *Ontario* reports moderate vigor and good health.

EUROPA. HT. (Keesen, 1928.) A. R. A., 1929.

*Foote* found it Columbia type, very fragrant, dark rose-pink, free, strong growth. *Ontario* reports orange-copper flowers. Evidently mislabeled.

GOLDEN DAWN. HT. (Grant, 1929.) A. R. A., 1930.

*Hatton* reports, "Tea blood dominates this beautiful Australian. Healthy Tea foliage on a strong plant is refreshing after so many Pernetianas. The fully double, lemon-yellow blooms are stained with old-rose and are deliciously Tea-scented. I am much impressed by it." *Armstrong's* first impression was quite favorable, but we think he is mistaken in referring to it as a climber. We saw a number of plants in the field and like the beautiful, well-shaped, light yellow flowers. The plant received from Australia in September did not bloom.

HOLLYWOOD BEAUTY. HT. (Pacific Rose Co., 1929.) A. R. A., 1929.

*Armstrong* says it is a deep rose-colored sport of Rose Marie, and he does not care a great deal for the color.

JULES GAUJARD. HT. (Pernet-Ducher, 1928.) A. R. A., 1929.

*Nicolas* prophesies that it will supersede Souvenir de Georges Pernet, to which it is superior in all plant characteristics, with deeper and more brilliant color. *Hatton* finds it a moderate bloomer, with enormous, thorny canes and attractive color. *Foote* reports vigorous growth, perfect foliage, brilliant color. *Elliot* agrees and calls it most lovely. *Bane* finds it a constant bloomer. *Hampton* is satisfied with it. *Isham* thinks it satisfactory, but difficult to establish. *San Diego* seems only mildly interested but admits it is worth having. Of all the new varieties tried at Breeze Hill the past season, Jules Gaujard was the only one which aroused any particular degree of enthusiasm, but we all bowed down before this one. The enormous flowers have genuine form and substance, as well as color. They are held erect and are freely produced on a bush which knows its business. We can think of many, many orange-red roses which we will joyfully consign to the burn-pile if Jules Gaujard performs as well next year.

MARGARET SPAULL. HT. (B. R. Cant, 1928.) A. R. A., 1929.

*Foote* found it very satisfactory, free-flowering, and quite resistant to disease, the flowers delicate orange and lilac.

MARION HORTON. HT. (Bees, 1928.) A. R. A., 1929.

*Foote* calls it a charming rose in shades of primrose and yellow, with Tea fragrance and good growth.

MARIPOSA. Poly. (Allen, 1927.) A. R. A., 1929.

*Foote* thinks it holds its color better than Golden Salmon.

MAY WETTERN. HT. (A. Dickson, 1928.) A. R. A., 1929.

*Armstrong* thinks it much superior to Mme. Abel Chatenay, the petals a little stiff, and the color not extraordinary, but a strong bush almost always in bloom. He likes it; so did *Ontario* who reports very deep pink-salmon blooms, fine pointed buds, and growth moderate. *Free* was very much pleased with its very long, pointed flowers of salmon-pink and fine growth free from disease.

MME. EMILE VAN DER GOES. HT. (Verschuren, 1925.) A. R. A., 1929.

*Ontario* reports 14 double, fragrant, delicate pink blooms on moderately vigorous plants, showing 17 per cent black-spot.

MME. HENRI QUEUILLE. HT. (Pernet-Ducher, 1928.) A. R. A., 1929.

*San Diego* reports that it does well, rather spreading, bloom moderate, color admired, and seems promising. *Isham* calls the color lovely, flowers well-shaped, foliage good. *Hatton* thinks the flower very attractive if cut and opened in the house; it fades too much in the garden. It does not bloom freely with him. *Nicolas* remarks brutally that it is not needed and the name damns it. We are sorry that we cannot agree with Mr. Nicolas. This name is so utterly hopeless

that no one will ever try to pronounce it. It will probably be called "Mme. Q," and become very popular, whereas people will keep on trying to pronounce the name of a good rose like Mme. Gregoire Staechelin, and get themselves so tied into knots that they will throw the rose away to avoid embarrassment. The next best thing to a good name is one so preposterous that no one will be able to pronounce it. The Frenchmen are highly successful at that!

MRS. JOHN BELL. HT. (Bell, 1928.) A. R. A., 1929.

*Foote* calls it one of the best roses of 1929, with a wonderful color, darker than that of Lady Inchiquin.

MRS. PIERRE S. DU PONT. (Mallerin, 1929.) A. R. A., 1930.

*Pyle* calls it an irrepressibly constant bloomer with lovely buds for cutting all through the season. He thinks it the most beautiful of the new yellow roses. *Nicolas* states "A dandelion-yellow rose that stays yellow, the most constant bloomer I know; extremely resistant to black-spot." We have had plants for two seasons, and while we are not so headlong in our admiration, we consider it pretty good. Note that this rose won the Gold Medal at Bagatelle last year, and also a Certificate of Merit at Pedralbes.

MRS. S. PATON. HT. (McGredy, 1928.) A. R. A., 1929.

*Elliot* calls it very lovely, good, but not a profuse bloomer, foliage good, medium tall, and branching. We had it at Breeze Hill but it doesn't mean a thing to us.

PORTADOWN. HT. (McGredy, 1928.) A. R. A., 1929.

*Ontario* and *Webster* find the growth satisfactory, but report that the color blues badly. *Flett* found good growth and foliage, thin flowers freely produced. *Foote* was not greatly impressed by it. Neither were we.

PORTADOWN IVORY. HT. (McGredy, 1929.) A. R. A., 1930.

*Nicolas* calls it a white rose with a bilious attack.

PRESIDENT BRIAND. HP. (Mallerin, 1929.) A. R. A., 1930.

*Nicolas* says it should grow on a peony plant; calls it a splendid specimen of the modern Hybrid Perpetual race.

PRESIDENT HERBERT HOOVER. HT. (Coddington, 1930.) A. R. A., 1929.

*Nicolas* reports first impression good, calls it well worth trying. We have seen flowers on and off for two years, and grew it the past year at Breeze Hill. The plants were indoor-grown and not up to two-year-old budded stock in quality, but nevertheless they did well, produced a fair quantity of large, handsome blooms of extremely variable color, and were much larger than those of Talisman, to which it is frequently compared, and not so double. The color arrangement is also very different—see Plate I.

PRESIDENT JAC. SMITS. HT. (Verschuren, 1928.) A. R. A., 1929.

*White* thinks very favorably of it.

PRIMROSE. HW. (Barbier, 1929.) A. R. A., 1929.

*Hatton* reports as follows: At last a good, yellow, hardy, double climber. The fully double blooms are 2½ inches in diameter, borne in clusters of two to five, rich primrose-yellow which does not fade, fragrant. He is greatly pleased with the flowers, the strong climbing plant, and the foliage. *Nicolas* prophesies it will be among the top-notchers. The Breeze Hill plant is still too young. The correct name of this rose is Primevère, changed to Primrose by the American introducers. See page 225.

ROSE BERKLEY. HT. (McGredy, 1928.) A. R. A., 1929.

*Foote* reports a very fine rose, good growth, free bloomer, one of the best new sorts. *Flett* found fair growth, and flowers like Mrs. A. R. Barraclough.

# Four Great Rose Men

IN MEMORIAM: By THE EDITOR

## JOHN COOK

THE originator of the world's best loved rose, Radiance, closed well-nigh a century of beneficent life on October 9, 1929. John Cook, whose 96th birthday was close by when the photograph was made which has been reproduced as Plate III, has frequently been quoted and mentioned in these pages. One of the Editor's "golden memories" is of a day spent in the home of this rose veteran after his ninetieth birthday, when his keen rose judgment, his forward-looking mind, his citizenship and his culture were all in evidence.

Radiance, the world-rose, was only one of Mr. Cook's contributions. Beginning in 1888 with the first American Hybrid Tea, Souvenir of Wootton, he sent out some 25 varieties, among the most prominent of which were Francis Scott Key, My Maryland, Panama, Pink Beauty, Mrs. John Cook, Lord Calvert and Pearl of Baltimore. His standards were so high that he "junked" hundreds of seedlings which were equal to or better than the average European introductions.

John Cook was a father whose sons and daughters gave him great joy and do him vast credit. He was a lively citizen, an interested horticulturist, a warm friend, a great rosarian.

## THOMAS ROLAND

A trustee of the American Rose Society for six years, this man of wise counsel, whose sudden death occurred December 11, 1929, was universally esteemed. His rose achievements were preëminently as an exhibitor—he knew how to bring the varieties he chose through to perfection on the desired date.

No one who saw it could ever forget the garden of hardy roses which was the outstanding feature of the spring exhibition of the Massachusetts Horticultural Society in 1927. Commissioned by Mrs. A. C. Burrage to find the plants and get them in bloom for this show, he did just that difficult thing.

Mr. Roland's skill was extended to many flowers, and he

loved them into perfection. Acacias, lilies, azaleas, hydrangeas, felt his touch, and responded with their best.

## JAMES BOYD

Though best known as an acute amateur whose knowledge of peonies and iris was amazing, this kindly gentleman who succumbed December 2, 1929, to a sudden heart attack, was also well acquainted with roses.

He was not an exclusive specialist, but a true horticulturist, with interest in and love for all plant creation. As a trustee of the American Rose Society, he was interested and helpful.

A singular capacity for promoting frictionless organization was the basis for Mr. Boyd's great work with the Pennsylvania Horticultural Society, of which he died president.

His last work was to put in final production the centenary volume of that organization. In 1928 he edited "Peonies: the Manual of the American Peony Society."

## WILLIAM C. EGAN

"The Sage of Egandale" was one of the titles by which his friends hailed the great gardener whose patience, skill, and friendship had made his home at Highland Park, Ill., truly a Mecca for plant-lovers.

With correspondents everywhere who were honored to have their best in plant life accepted at Egandale, the collection there became notable. With his rare Irish humor, Mr. Egan would tell to visitors the history of each fine thing.

Of course he loved roses, though he had to fight hard to protect them from lake storms. Naturally he paid attention to those that could endure, and it is undoubtedly due to him that the super-hardy Max Graf was rescued from oblivion.

He was young to the end, though had he lived until April 1 next, his friends would have joined in celebrating with him his eighty-ninth birthday. Bubbling with whimsical humor, always kindly, a great horticulturist, a genial philosopher, William C. Egan ended on January 2, 1930, a long life which left the world a better place to live in.

# Two Important Rose Varieties from Bud-Sports

By A. D. SHAMEL, Riverside, Calif.

EDITOR'S NOTE.—Prof. Shamel's interesting details of the origination from bud sports of two varieties of roses of value in California emphasize the importance of vigilance in relation to other similar variations. Red Radiance and Mrs. Charles Bell are familiar instances of fixed color variation in bud-sports, both arising from Radiance as the parent. All the "climbing" Hybrid Teas are evidences of growth variations observed and by propagation preserved.

In the great business of cut-flower rose production, keen growers are always alert for variations likely to occur where many plants of the same variety are grown under favoring conditions. Ophelia, for example, has been a prolific source of valuable sports—Mme. Butterfly, J. C. M. Mensing, and others.

But a most important possibility for better rose plants is a collateral factor in bud variation. In a former Annual a shrewd Australian correspondent has called attention to the poor quality of plants grown from weak or immature buds. It is believed that a variety may be actually built up in vigor and other qualities through propagation only from selected buds, just as it seems likely that many new varieties are deteriorated by the use of unsuitable buds.

TWO rose varieties of outstanding merit and of large commercial importance have originated as bud-sports in Riverside. These glorious roses have stood the test of time in the Southwest and both are growing in popularity with each passing year. A brief description of the origin and development of these varieties may be of some interest and value through illustrating the importance of bud-sports in the origin of new and improved varieties of roses as is the case with other vegetatively propagated plants. Both of these rose varieties were originated and introduced by a pioneer Riverside plantsman who is responsible for many of the most beautiful ornamental plantings in this and neighboring communities.

The Climbing Cécile Brunner rose was originated by Mr. F. P. Hosp at Riverside in 1894. In 1893, Mr. Hosp planted the trees, shrubs, and flowers along Victoria Avenue that have made it one of the most famous drives in the Southwest. Every year, thousands of people visit this enchanting avenue in order to enjoy its flowers and ornamental plantings. Among the original plants were a dozen bush Cécile Brunner roses that have since passed out of existence.

During the year following the initial planting, Mr. Hosp

noticed in one of the bush Cécile Brunner plants a long branch of extraordinary vigor of growth. Instinctively he suspected that this abnormal growth might be a sport. He cut part of it off and made several cuttings from it that he rooted in his propagating-garden in Riverside. The resulting plants showed the same characteristics as the parent branch, proving that it was a true bud-mutation or sport.

Mr. Hosp sold or gave away locally many plants of the new variety, and in 1901 sent it to eastern rose propagators and distributors. The eastern nurserymen were rather skeptical of the inherent stability of the new rose and were slow to adopt it. As a result, Mr. Hosp has never made any money from this variety or obtained any financial reward for his contribution to the rose world.

Climbing Cécile Brunner's flowers are apparently identical with those of the parent bush form. The foliage is also very similar except that because of the tremendous vigor of growth of the climbers there is a tendency to somewhat larger and brighter colored leaves.

The plants are unusually free from disease and insect pests. They are hardy all over the Southwest, and, after planting, soon grow to great size, often covering walls, houses, pergolas, or trellises within a few years. The dense, bright green foliage is particularly attractive and remains fresh and lovely throughout the whole year.

The blooms are much used as cut-flowers and for boutonnières. The partly opened buds have a very delicate shell-pink color and a characteristically elegant shape. In the spring, the plants bloom with riotous profusion and continue to furnish some flowers throughout the entire year.

Climbing Papa Gontier is another contribution from Mr. Hosp. He originated it through the selection and propagation of a sport of a bush Papa Gontier in 1898, in a similar manner to that of Climbing Cécile Brunner.

Climbing Papa Gontier makes a growth of from 8 to 10 feet in comparison with 2 to 3 feet for the parent bush form. The foliage and flowers of the climber are very similar, if not identical, with those of the bush plants.

Its flowers are large, bright red, almost scarlet, and the

partly opened buds make lovely cut-flowers. During the early spring months the plants bloom most profusely in Riverside, and they present a very striking and radiant appearance. They are quite resistant to diseases and pests, and while not such vigorous growers as Climbing Cécile Brunner, are vigorous and long-lived wherever they have been observed.

The origin of these two valuable rose varieties from bud-sports illustrates the method by which many of our most valuable and widely grown rose varieties have been produced. Keen observers are continually on the lookout for bud-variations, and new varieties developed through the selection and propagation of these sports are continually being offered to the public by rose propagators. It is particularly interesting from the fact that, with intelligent observation from this point of view, anyone is likely to find a valuable new and desirable bud-variation that can be propagated and introduced for the pleasure and benefit of all flower-lovers.

The rose plant lends itself particularly well to the study of the phenomenon of bud-variation, and through the selection and propagation of apparently valuable sports it offers an almost limitless field for the origination and development of new varieties. Color and form of blooms are the most important plant characters, and these can be conveniently observed so that any striking differences in the color or forms of the flowers in different parts of the same plant, or among individual plants propagated from buds or cuttings, can be easily detected. The fact that roses are propagated commercially solely from vegetative* parts renders marked differences among the individual plants as definitely due to bud-variations as though these different colors or forms occurred on different branches of the same parent plant.

The propagation of roses from buds or cuttings is a comparatively simple matter and within the power of almost everyone. The search for striking bud-variations and the propagation of the interesting ones as the foundation of possible new varieties, is a most interesting and practical work, or hobby, for those who desire to be of service to mankind in this way.

*"Vegetative" propagation is from plant parts, either of roots or branches, as compared with propagation from seeds sown, in which latter case, much variation from the parent may occur.—EDITOR.

# The First Wichuraiana Hybrids

By M. H. HORVATH, Cleveland, Ohio

EDITOR'S NOTE.—Quite accidentally, we discovered several years ago that Mr. Horvath, now living in Cleveland, originated the first Hybrid Wichuraiana roses ever put into commerce. The development of the Wichuraiana race is America's greatest contribution to rose growing so far, and we are glad to have the facts from the man who pioneered in that field.

IN 1893, while I was employed by the Newport Nursery Co., at Newport, R. I., I first saw *Rosa wichuraiana*. Struck by its beautiful, lustrous, shiny foliage, I thought it was too bad that such wonderful growth and foliage should be topped by the meager little flowers it bore.

I decided that it would make a good subject to experiment on, and proceeded to pollinate some of its flowers. I had only two varieties of roses handy from which to get pollen, so I took what there was. One was a small Polyantha with apple-blossom-pink flowers; the other the old Agrippina. The pink one I cannot name, and I think it is not now found in commerce. The flowers were of an imbricated type, and possibly it might be traced by searching through some old catalogues of the period of 1880 to 1890.

Manda's Triumph and Universal Favorite resulted from the pollination of this Polyantha and *R. wichuraiana;* and Pink Roamer and South Orange Perfection form the pollination of *R. wichuraiana* and Agrippina. These roses were introduced by W. A. Manda, of South Orange, N. J., in 1898 and 1899.

When the American Rose Society held its first flower show at the Eden Museum in New York City, I exhibited a number of my hybrids. The edition of the *Florists' Review* during or after the show gave quite an interesting account of the varieties I exhibited there. If that could be located it would throw a little more light on my work. My old records are stored in Mentor, Ohio, and inaccessible to me at this time.*

There were four *R. wichuraiana* hybrids and two *R. rugosa* hybrids in the lot. During the same year (1900), in June, one of the Barbier brothers, well-known nurserymen of Orléans, France, visited my experimental grounds at Glenville, Ohio, which

*Time was too short to search for the report.—EDITOR.

was my residence at that time, and in consequence, hybridizing soon got under way in France, resulting in the production of numerous hybrids. *R. wichuraiana* was also taken up about the same time by M. H. Walsh at Woods Hole, Mass., who produced a large number of excellent varieties.

The American Rose Society at that period paid no particular attention to rose-research work, and in discouragement I dropped out of the membership.

Since then, I have worked on a large number of species, aiming to effect improvement in the hardy garden roses, climbers in particular. The results of some of my experiments were really comical. Some roses were fairly good and rather interesting, but, owing to lack of opportunity to show them, I dropped most of them, yet some are still persistently clinging, even thriving, in my old second experimental plat at Mentor.

In 1920, one of my *R. setigera* × *R. wichuraiana* hybrids was in bloom, covering about 200 square feet of a rose-arbor at Cleveland Heights. A lady client of mine asked me the name of the variety. The rose, of course, had never been named or introduced to commerce. I told her it had no name. She asked, "Why don't you name it after me?" I told her if she wanted to have a rose named after her I would make one for the purpose. The rose I made for her bears the name, Mrs. F. F. Prentiss. It is a combination of *R. wichuraiana* × *R. setigera*, recrossed with Lady Alice Stanley.*

This opened a new chapter in my hybridizing work. Of course, the task of breeding out the weak and obtuse petals of Setigera is not a small one; but if my forcing will come through successfully for the coming Cleveland Flower Show (March, 1930), I will have ten varieties on exhibition, some of which have been thoroughly tested, and among them are Setigera hybrids with pointed buds and really good colors.

I have a large number of Setigera hybrids on hand at my experimental plat now. Some with *R. damascena*, and some with *R. fœtida bicolor* and *R. multiflora* combinations; also several types of roses on which I am working to obtain some improved understocks, both for bush and standard roses.

*This was one of the roses exhibited and named at the National Flower Show in Cleveland, 1925, and provided our first direct contact with Mr. Horvath.—EDITOR.

# The Case of William R. Smith, Charles Dingee, Jeannette Heller, Et Al.

EDITORIAL

STANDARDIZED PLANT NAMES, the generally accepted authority on the names of plants in America, contains the following entry on page 452:

> William R. Smith. HT. (Smith, 1908.) *Blush Maman Cochet; Charles Dingee; Jeannette Heller; Maiden's Blush; President Smith; President Wm. R. Smith; W. R. Smith.*

This means that all these names have appeared in American catalogues to indicate one rose, the approved and presumably original name of which is William R. Smith.

The last three synonyms are obviously the result of error, indifference, ignorance, or laziness; but *Blush Maman Cochet* was evidently the idea of some bright-eyed, slightly dishonest nurseryman to cash in on the ever-popular name of a good, once-popular rose, Maman Cochet.

*Maiden's Blush* has been applied to many roses in the past, and therefore cannot be a good name for this variety.

*Charles Dingee* is the name used by one firm which sells own-root, greenhouse-grown roses. In their catalogue they attribute its origin to an improbable cross of Hermosa × White Maman Cochet.

*Jeannette Heller* is used by another own-root concern said to be controlled by the same interests.

Most of us have bit on these two lures at some time or other, and most of us have discovered that these two roses and William R. Smith are the same.

The problem presented was to ascertain which of the three names, William R. Smith, Charles Dingee, or Jeannette Heller, had been attached to the rose *by the originator*.

Standardized Plant Names, upon some authority at present unknown, attributes the rose to "Smith," presumably William R. Smith, who was the first superintendent of the Botanic Gardens in Washington, D. C. He died in 1912.

While good rosarians were convinced that William R. Smith

was the correct name of the rose, there was no direct proof until the following correspondence revealed the entire story.

Hartford, N. J., *January 19, 1928*

Mr. Robert Pyle, West Grove, Pa.

*Dear Sir:* Very likely it would interest you and others to know exactly how the rose William R. Smith was produced. It happened years ago in my greenhouses, in Bridgeton, N. J. One morning, late in September or early in October, I noticed among a few roses in pots a Maman Cochet in bloom, with fewer petals than usual but a perfect set of pistils. This was an opportunity that had never occurred before, or since for that matter, so I immediately began a search for pollen, and was quite provoked because the only rose with pollen to be found was a Mme. Hoste, so I used that. When the hip was ripe the seeds were planted; five or six germinated and grew; one went ahead of all the rest and soon produced a fine little double flower. The rest of the plants were about half the size of this one, and had little, single, pink flowers. *This little double one was afterwards named William R. Smith.*

That fall I moved to Philadelphia and kept it in the greenhouse of a friend. It would not do anything as a winter rose, so I lost a good bit of my interest in it. Afterward I was told by a reliable party that my friend sold it for $500, but he never paid me a cent of it.

Respectfully,
Richard Bagg

Office of the Secretary, *February 7, 1928*

*Dear Mr. Bagg:* Would you be good enough to complete the history of the rose William R. Smith, so that we can have it as a matter of record for the American Rose Society? Tell us to whom your friend sold it for $500, and who was your friend who sold it, and do you have any history beyond that?

We particularly want to know about the man who paid $500 for it and what he did to get back his money. There is no question but that it has been a good rose. It was well named in honor of an able gentleman. Of course, it has been offered many times under many *noms de plume*. I wonder if you know anything about that? Won't you write us further?

Sincerely,
Robert Pyle

Hartford, N. J., *February 10, 1928*

*Dear Mr. Pyle:* I am sorry I did not send the names of those in the deal, as it was told to me by Mr. Robert Craig, Sr., a few years ago. He said that Mr. John Shellem, at a dinner party, sold the rose William R. Smith to E. G. Hill for $500.

The trouble with me was, that I lost my property in Bridgeton. I had to get work somewhere and struck it with Mr. Shellem. I went there in the fall and took two or three little seedling roses with me, and he let me plant them on a bench where some of his roses had died out. One of them was finally named William R. Smith; others were no good, as usual with seedling roses.

I forgot to tell you that Mr. Shellem had been dead for a year or more before Mr. Craig told me about the deal. . . . .

Yes, I know that William R. Smith has been renamed by several. One of the names is Charles Dingee. Just a swindle! Why cannot people deal square?

Sincerely yours,
Richard Bagg

Some months later these letters were sent to the Editor, who proceeded to complete the investigation as follows:

Office of the Editor and Vice-President, Harrisburg, Pa.
*September 26, 1929*

Mr. E. G. Hill, Richmond, Ind.

*Dear Mr. Hill:* A very curious situation has developed in which I would like to have your assistance.

There has long been a dispute as to the rose William R. Smith which, in our carefully compiled list of American roses, published in 1922, was credited to Mr. Smith.

Now appears a letter from Mr. Richard Bagg who lives in Hartford, N. J., dated January 19, 1928, in which he gives the full details of his production of William R. Smith in his greenhouse at Bridgeton, N. J. Subsequent correspondence brought out the statement from Mr. Bagg, attributed to Robert Craig, "that Mr. John Shellem sold the rose William R. Smith to E. G. Hill for $500."

I think if we can publish the letter from Mr. Bagg we ought to settle at least the origination and the parentage of this rose, but it does become important to find out what you know about the situation. Yours truly,

J. Horace McFarland

Richmond, Indiana, *September 28, 1929*

*Dear Mr. McFarland:* Mr. John Shellum, of Philadelphia, never claimed to have originated the variety named William R. Smith, but I never could get from him the information as to who did originate the rose, and your letter clears up that matter, for Mr. Shellum came in possession of the variety from some party unknown to me at the time.

I bought the variety William R. Smith from John Shellum of Philadelphia, with the understanding I was to have all the stock of the said rose. I had understood that Mr. Robert Craig had a few plants of the variety on trial, but these and all other plants of the same were to be given into my possession on the payment of $500, and as Mr. Shellum was being hard pressed for money at the time, I advanced him the amount ($500) in good faith, and he later sent me a considerable number of plants which, I supposed, were all of the variety, but I afterward found that he had let out plants on trial to five or six other parties.

I brought in samples of this rose from three or four firms and I found they were the William R. Smith variety that I had purchased from Mr. John Shellum that had been given different names.

The rose was christened at a dinner party in Philadelphia, by blooms furnished by Mr. Shellum. Mr. Craig, I believe, was the principal mover in the affair, and thought it would be nice for it to bear the name of his old Scotch friend, William R. Smith. The rose was named before I purchased it.

We found that other parties had this rose and we never exploited it as a novelty. Very truly yours,

E. G. Hill

Harrisburg, Pa., *September 30, 1929*

*Dear Mr. Hill:* I am exceedingly glad to get your conclusive letter of September 28, which it would seem definitely clears up the history of the William R. Smith rose, and as definitely makes any further misnaming almost criminal and at least very wrong. Yours truly,

J. Horace McFarland

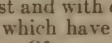
These are the facts. The correctness of the approved name can no longer be doubted.

# Rose Notes

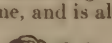
From EDITORIAL CORRESPONDENCE

**Failure with Tea Roses.**—While planting Tea roses has been urged upon southern members, and the results of experiments in that direction have been generally satisfactory, there have also been some failures. The following from E. A. Moseley, of Beaumont, Texas, may indicate that Teas are unsuited to that region, or that the right varieties have not yet been found.

"Tea roses may succeed in some locations in the South, but in this particular location which is on the Gulf Coast and with only 24 feet elevation, I have tried some fifteen to twenty varieties which have been a dismal failure. The buds ball and rot without ever opening. Of course, there are exceptions to this rule in extremely dry weather."



**Protection Against Wet.**—Joseph Gray, of Stockton, Calif., tells about a rubber protection which he finds useful in avoiding the dampness of the grass and ground when working with roses in the early morning or after rains: "Take a 10-inch strip of good live rubber from a bicycle inner tube, split it open, and run cement along the edges. Lay it on a piece of khaki or suitable cloth of slightly larger size, and fold the edges over on the cement when it is tacky. This is pinned to the trousers at right angles to the left knee, slightly to the outside of the center crease. By turning the trouser-leg inside out and sliding it under the arm of the sewing-machine in the same manner that a stocking is held to darn, and with a little patience in withdrawing the pins as they are reached, the patch is sewed on firmly in no time, and is always ready for service."



**Hardy Roses for the North.**—In the 1928 Annual, page 70, Prof. N. E. Hansen of South Dakota State College at Brookings, told of his efforts to breed hardy roses for the "blizzard country." It will interest members who have difficult climates to learn that Prof. Hansen has published a pamphlet, "Hardy Roses for South Dakota," in which he details his experience and experiments. This pamphlet is listed as Bulletin No. 240, June, 1929, of the Department of Horticulture, Agricultural Experiment Station of the South Dakota State College of Agriculture and Mechanic Arts, Brookings, S. Dak., and doubtless copies can be obtained by proper inquiry.

In a letter concerning this booklet Prof. Hansen states:

"The work in rose-breeding here was conducted on a larger scale than ever the last season. We have much seed stratified, more than 1200 lots at a rough estimate. The minimum temperature here at Brookings last winter was -42°. It seldom gets this low, but hardiness is essential. I am trying to breed roses for the prairie Northwest. Roses that will stand without any winter protection are necessary because that is the test they will meet in most places as they get into the prairie gardens. They must be as hardy as the ordinary prairie roses, and nobody thinks of protecting them.

"The question of hardy rose-stocks is also receiving much attention. None of the stocks used in a commercial way in America at present seem to fill the bill. The ideal stock may not be here as yet, but I trust it is on the way. In fact, I feel quite sure that it is."

**Tobacco Stems as Mulch.**—"For a number of years we have mulched our beds with tobacco stems which we buy from cigar manufacturers for $15 a ton, in bales containing about 300 pounds. A 300-pound bale does about 200 square feet. In addition to keeping the ground moist and preventing the growth of weeds, also removing the necessity of cultivation, there is a certain amount of fertilizing element carried in the ground from this, including a small percentage of potash."—WALTER H. ELLIS, Newark, N. J.

**A Friendly Bug.**—The lady-bird beetle, or the lady bug, as it is more commonly called, is known to have a fondness for a diet of aphides and scale insects. At Breeze Hill we do all we can to encourage this excellent taste, but we never acquired anything like the plutocratic richness of a quart of them!

"Year before last, while at Mt. Rainier on a trip, I noticed in one belt around the mountain that the roses were not troubled with aphides. I investigated, and some close observers claimed that they had little beetles called 'lady bugs' that practically lived on aphides in preference to anything else. They are small bugs with lots of little black spots all over them. I made arrangements with the children of one family to catch me a quart of them and ship them to me. I received the 'lady bugs' and turned them loose in my garden. They got busy right away.

"This year my roses and those of my neighbors are practically free from aphides. It seems to work out that Nature has a remedy for everything if we can only find and apply it."—F. P. STARR, Battle Mountain, Nev.

**Clay as First Aid to Roses.**—"We purchased a new home last fall and I moved about sixty plants, heeled them in, and set them out this spring with about fifty new plants purchased from different places. They seemed to grow at first and then began to die, continuing until I had lost all but about forty plants, and they were not growing as they should.

"Roses *can* be grown in Kansas and I knew I could grow them; but still I wondered if I had lost the fine art of knowing how to put them into the ground. It was a continual annoyance, as usually about this season of the year a rose plant in Kansas will be sending out shoots, new growth, and blooms, but these were just standing still. Many that had put out new shoots earlier in the season were losing them, and I grew desperate.

"Finally, I wrote to our Agricultural College at Manhattan, sending them a jar of dirt from my rose-garden, and their reply was that there was no clay and no plant-food in the way of cow-manure and grass clippings in the soil. This seemed to be a solution to my rose problems, so I set about to put a layer of 2 inches of virgin clay, a layer of well-rotted cow-manure, and then a layer of clay. This I worked into the soil well, especially around the plants, and then watered them so the ground was soaked. The results were marvelous. *In three days*, plants that were stunted and which had never yielded a bloom-shoot had produced new rich dark foliage and every plant had put out shoots from every bud above the leaves.

"I am so well pleased with the results that I am spending my evenings and mornings in filling in the rest of my rose-garden with the clay to plant new bushes another spring."—C. M. LESSENDEN, Downs, Kans.

**Cherokee *vs.* Francis Scott Key.**—An inquiry has been received from a lady in Charlotte, N. C., as to where to get the Cherokee rose. She has applied to "one Texas grower," and he writes her that "the Cherokee was the Francis Scott Key. . . . a vivid scarlet or crimson." Is the Texas grower a member of the Ananias Club or is he just plain "dumb"?

**Roses in the Navy.**—From W. T. Cluverius, Rear Admiral U. S. N., Commandant Norfolk Navy Yard, Portsmouth, Va., comes this important news about the value of roses in the service and their behavior in that part of Virginia.

"The Norfolk Navy Yard, wherein nearly 4000 employees are engaged in continuous work in the upkeep of the United States Fleet, feels that fresh and attractive surroundings are an important factor in advancing this work and really are conducive to efficiency in any work. To that end, efforts have been made to keep the waste places green and, wherever possible, roses blooming. Our climate borders on the subtropical, due to nearness of the Gulf Stream, and the year round finds us with something growing other than ships.

"Our best climbing roses are Silver Moon, Dr. W. Van Fleet, and Mary Wallace. Paul's Scarlet Climber also does very well. This conclusion is based on the fact that these roses normally afford a mass of bloom during late May and June, thrive with little attention, and are practically immune to the usual rose pests and diseases. Among the Hybrid Teas, probably the most all-round satisfactory roses are the Radiance group—Radiance, Red Radiance, and Mrs. Charles Bell. Among the yellows, or near-yellows, Duchess of Wellington appears to give the best results. Souvenir de Claudius Pernet, Souvenir de Georges Pernet, Los Angeles, and, in fact, none of the roses of Pernetiana blood do well in this locality. They fail to grow, lose their foliage early, frequently die back after a year or so, and, according to my observation, are as a class unsatisfactory in this tidewater section of the state. I have seen splendid specimens of the Maman Cochet roses growing in gardens hereabouts. Practically all of the Polyantha, or baby roses, with the possible exception of some of the newer varieties, grow and bloom exceptionally well here. I have in mind a very fine planting of these roses, including such varieties as Chatillon, Lafayette, and Miss Edith Cavell, now in full bloom notwithstanding some recent very unfavorable weather conditions.

"That famous old rose, Maréchal Niel, whose golden blooms have given such pleasure to the people of the Southland, will not thrive in the Norfolk region except in isolated cases, and then it is but a caricature of the beauty it attains in more favored climes. This may be a bit surprising as Norfolk is generally looked upon as a part of the real South.

"Black-spot has been particularly devastating in its effects this season. I have noticed whole gardens of roses denuded of their foliage from this source, not a single bush, apparently, being free from the disease. It looks as if we will have to organize our ranks to battle the enemy if we are to save our roses. Perhaps a close reading of 'The Proof of the Pudding' in future issues of the Annual will enable us to make the attack with more effective ammunition and weapons of offense. Surely the Queen of Flowers is well worth saving not only for our own enjoyment but for the pleasure of those who come after us.

"I have not noticed in the Rose Annual any comment covering roses and their behavior in this particular region, and thought that some running comment might be of interest to the people here among whom appreciation of the rose as 'A thing of beauty and a joy forever' appears to be decidedly in the ascending scale."

**Souvenir de Claudius Pernet Behaves as a Standard.**—Probably none of the newer yellow roses is better in color, form, and blooming qualities than Souvenir de Claudius Pernet, when it is good. But it is a woeful fact that it is not always good. Curiously enough, the following note brings to mind the fact that every time we have seen Claudius Pernet grown as a standard it *was* good.

In the autumn of 1924 while the American Rose Society was visiting the extensive garden on the Frothingham estate at North Easton, Mass., dozens of standards of Pernet were observed bearing many blooms of splendid color, form, and substance. Since then, the rows of Pernet on standards in various nurseries have always impressed us, and last spring we had an even more convincing object lesson in the garden of Whitman Cross, at Chevy Chase, Md. Here standards of Pernet were growing in the same bed with the dwarfs and bearing splendid blooms, while the dwarfs were ll-shaped and of bad color. Now comes this note from M. O. Morgan, of Seattle, which clinches the matter, and seems to indicate that if we want Claudius to be good, we must grow him on a standard: "Perhaps my experience with Souvenir de Claudius Pernet may interest those who have had difficulty in getting good bloom out-of-doors. In 1927 one of my bushes started a strong cane which grew 6½ to 7 feet high. In the spring of 1928 I decided to make a tree of it, and cut off all the bush but the tall cane, pruning that down to about 5 feet. That summer we had a few good blooms and this summer more of them. They are not all good, but there are many more perfect flowers of this wonderful rose on the tree than on the bush."

**When Good Fellows Get Together.**—An old Pennsylvanian himself, our good friend Dr. Hiram DePuy, of Tacoma, Wash., tells of this jolly meeting with a party of Pennsylvania tourists in the shadow of Mt. Rainier: "Last Sunday morning I met, by appointment, a party of sixty tourists from Schuylkill County, Pennsylvania, at the railroad station, just before entraining for Mt. Rainier. I gave them, with my compliments, 200 yellow Honeymoon roses, cut at 5 A. M. and still dewy, together with bunches of French lavender dressed with Baby's Breath (Gypsophila) for each lady in the party. After roses, 'lavender and old lace' appeals to all ladies. The surprise and gratitude of these good Pennsylvania folk were unbounded, and not without some humor. Hearing some Teutonic accents from a distant corner, I volunteered a few rose-lines in German, when suddenly a leader exclaimed—'*Herr Gott, er spricht auch Deutsch!*'

"After that, there came my way hand-shakes and cigars from the men and blessings, tears, and all but kisses from the ladies. 'Such roses and such generosity' was a revelation, and, in confidence, they said that Tacoma was the first place on their long journey where they had received something for nothing —and *roses* on a quiet Sabbath morning when the masses were still enjoying their beauty sleep! With golden roses pinned on every breast, they declared, 'We will *never forget Tacoma!*'

"Thus speaks the rose. They were soon on their way to ascend Mt. Rainier's alpine meadows, to do a bit of snow-balling in August, and to explore other heavens only three hours from tidewater and Tacoma's rose-gardens.

" 'Music hath charms to soothe the savage breast,' but the rose hath a subtle appeal which liquefies every crystallized passion into the waters of divinity."

**Rose-planting Day.**—In last year's Annual, page 161, Mrs. Fremont Older told of the plans of the Santa Clara Rose Society to distribute roses along the main highways of the county. Now come newspaper clippings and a brief note from Mrs. Charles Derby, State Vice-President, telling of the distribution of 1000 Paul's Scarlet Climbers to the ranch-houses along the chief highway, where they were promptly planted and in time will make the road a veritable rose highway across the county. Mrs. Derby tells us that the effort was a great success and that the people of Santa Clara County have become thoroughly rose-conscious.

**Father Schoener's Continuing Rose-work.**—A report reaches the Editors to the effect that this persistent and capable worker in rose genetics has just been informed that some 338 seedlings have already shown themselves at the Boyce-Thompson Institute, resulting from a large sowing of cross-fertilized seeds provided by the Padre. Father Schoener is working in the right direction, because he is endeavoring to take second-generation crosses of less hardy but very vigorous roses into the rugged and hardy life-stream of Frau Karl Druschki, and he has woven into this web the so-called "Pernetiana" blood.

Father Schoener has done much toward establishing a municipal rose-garden in Santa Barbara, and his dream is that in it there may be included some of these hybrids to which he has given so much of his life. Nothing could be finer than a great public rose-garden named for Father Schoener in which his rose genius could have full sway. The Editor wishes Santa Barbara were not more than three thousand miles away, but he has commended to the new California Rose Society this important enterprise.

**New Municipal Rose-Garden Opened.**—"Auburn, N. Y., opened the Municipal Rose-Garden July 3, 1929, at Hoopes Avenue Park, with the Eleventh Annual Rose and Floral Show. It was largely attended and a great success. This Park was a gift to the city and covers 14 acres of land. It is being planted and beautified by the city government. An attractive lake, covering 2 acres, occupies the center. Various varieties of pond-lilies have been planted in the lake. All have bloomed. Suitable aquatic plants will be put in and around the edge. Wild ducks have already been attracted to this little body of water.

"Walks bordered with rose-beds have been laid, shrubbery has been planted, and a handsome recreation building has been erected at the cost of $15,000. It was in the building that the indoor part of the rose show was held. As the Park is located where it is subject to the cool breezes sweeping down from Owasco Lake about 2 miles distant, care must be exercised in planting. The Rose Society was fearful that the more tender roses would not stand the severe winters in this locality. The city tested this out by planting about 100 roses last year, and they came through the winter without any difficulty. Of course, they were well protected, we understand, with soil and then boxed in.

"The Auburn Rose and Floral Society was invited to establish a Municipal Rose-Garden at the Park, and started this year with about 200 roses. More are to be added each year. All who attended the opening were delighted with the location, and the prospects are good for one of the most beautiful and attractive show places in this beautiful city."—Charles G. Adams, Secretary Auburn Rose and Floral Society, Auburn, N. Y.

**Trade-marked Roses.**—The horticultural world is extremely interested in the efforts of the Canadian Horticultural Council to obtain patents for newly created plant varieties. Mr. L. F. Burrows, Secretary-Treasurer of the Council, stated in a memorandum which reached us by the kindness of Mr. Frank Flett, of Hamilton, Ont.: "In an endeavor to provide the breeder of horticultural plants at least a measure of protection, the Canadian Horticultural Council established and has conducted, since 1923, a system of Plant Recording and Registration under the direction of Mr. W. T. Macoun, Dominion Horticulturist. . . As a result of this system, the originator is furnished with evidence from the most outstanding horticulturists throughout Canada and the United States, that he is the originator and entitled to the possession of the new variety. While, of course, such evidence has no legal status, it is of very considerable weight should a dispute regarding ownership arise. . . . On several occasions we have attempted to secure a trade-mark, or brand, of the name of a new variety. On March 31, 1928, we made application to the Commissioner of Patents on behalf of the Dale Estate, Ltd., Brampton, Ont., for the registration of a specific trade-mark, 'Lady Canada,' to be used in connection with the sale of rose plants, cuttings, and roses. On July 14 we received from the Commissioner of Patents the Certificate of Registration. To the best of our knowledge this is the first registered trade-mark issued in the Dominion of Canada for use in connection with the sale of a new variety. Under the provisions of the granting of this trade-mark, the Dale Estate have absolute control over the sale and distribution of the 'Lady Canada' rose, and may take action against any person who uses the trade-mark or any fraudulent imitation thereunder, or who sells any rose plants, cuttings, or roses under the name 'Lady Canada' without their authority."

**White Banksia in the South.**—The picture of the White Banksia facing page 120 was sent to us by J. L. Ludlow, of Winston-Salem, N. C., with the following account of it:

"This White Banksia was planted thirty-five years ago, and though numerous dead branches have been taken out of it for the past several years, it is still in a very healthy condition.

"The pergola which supports it is 7 to 8 feet from where the roots come out of the ground, and the columns cover a space of about 7 by 19 feet. It has a gnarled and twisted trunk, in several branches. With the dead bark on, it looks like an old cedar tree or much like an old Scuppernong grape.

"Several branches are 3 to 4 inches in diameter. I think the reason for the several branches of the trunk is that, in regrading the garden 15 to 20 years ago, the ground was filled in 1½ to 2 feet. It was thought then that the filling might kill the rose, but this apprehension was not justified.

"Notice the blooms in the top of the tall apple tree in the background. This apple tree is about 25 feet horizontally from the trunk of the rose bush from which one long streamer has voluntarily extended itself up to the very top of the tree, with several blooming branches from the main branch. There are some blooms, too, in the top of a quince tree to the right of the pergola. This is 25 feet from the rose-trunk.

"Considering the age of the bush, its immense size, its curious trunk, and the fact that it blooms abundantly every spring, with occasional scattered blooms in the autumn, it seems to me to be quite a remarkable rose bush. It is of unusual beauty when in bloom and even when there are no flowers it is very beautiful with foliage very much like smilax."

**"The Rose Bulletin"** is the title of the "Official Publication of the Iowa Rose Society." No. 2 of this publication tells of plans for promoting rose-advance in Iowa. The president of the organization, Mrs. Ralph Orwig, of Des Moines, discusses forthcoming rose pilgrimages, the continuance of "The Rose Bulletin," the annual meeting, and the importance of membership in the American Rose Society. At once the Bulletin gets practical in discussing details of rose-growing which cannot but be desirable for all who read.

Mrs. Orwig advises us of "a rose talk and a radio talk for both the American Rose Society and the Iowa Rose Society at Shenandoah on February 20 and 21, when the Shenandoah Garden Club and the Henry Field Seed Company are to give a two-day Garden Club Short Course."

Thus real vigor is infused into rose-progress and rose-life.

**Fresh Manure and Shallow Planting.**—I find Mr. Stevens entirely right about fresh manure. Of course, I don't mean plunging the roots into fresh manure, but when feeding the plants, say in July. I have for some years now filled a trench 6 inches deep around each plant with fresh manure and water as thick as oatmeal porridge. Results have been fine, no harm, the roses are flourishing like the green bay tree. And how correct he has been about shallow planting! I dug up some this year that had been planted fifteen or more years ago. The bud was 6 to 8 inches down, all roots below it rotten, and the plant struggling along on own roots. No wonder it was only fit to be thrown away. I did not originate my garden, but took it over when I retired from work, and so I practically have had to make it all over again.

I tried Floranid this summer and found it apparently was most beneficial for both foliage and blooms. In fact, the foliage on many is as green and glossy in November as it was in the spring, and yet they are all tucked away for the winter and have felt the frost a number of times since October 1.—GEORGE T. ELLIOT, Oxford, Maine.

**Dormant Budding.**—Dr. C. H. McLeod, of Lynden, Wash., tells about a method of budding which can be practiced at any time of the year. It should be especially interesting to those who are engaged in raising seedlings. "Try this method of budding when stocks are dormant. If you purchase a high-priced novelty, you can use the buds to make maiden plants the first year, for most novelties are very poor plants when you get them; in fact, so poor that you cannot judge the variety until you bud it yourself or wait until good, strong plants can be purchased. The method is very simple. The knife must be exceedingly sharp; this is more necessary than in ordinary budding. All there is to it is to slice a small piece of bark from the stock on which you wish to bud, cutting very close but not into the wood. The piece of bark sliced off must be the same size as the bud you are going to apply to the same place. Then cut the bud, without wood, as before, making it fit the cut on the stock as nearly as possible. Tie or bind it in place with adhesive tape. With a little practice you will be able to bud by this method just as quickly as the old way, and much more successfully, I think. Possibly early March would be the best time to try it in Pennsylvania, but it would do no harm to try it at any time. They grow here at any time. The method can be practiced on any kind of wood or stick about the size of a rose-stock until reasonable proficiency is acquired."

**Success with Emily Gray.**—"Reading the reported tenderness of Emily Gray and its desirability as a yellow climbing rose, I gave a plant to my brother who planted it by my direction to be trained on a trellis on the southeast corner of his covered porch. The situation is a little more southern than just southeast.

"In this location it has grown and bloomed beautifully, the only loss from winter-kill being the upper ends of the tender new growth of the previous fall. I suspect that an added and desirable protection is afforded its roots and lower branches by a foundation planting of suitable shrubs, with plenty of space for root development without any encroachment by the shrub roots.

"Long-stemmed, beautiful yellow buds, that open to handsome, semi-double, creamy to buff-yellow flowers, are produced freely in its season, and the plant is a beautiful cascade of glossy, healthy foliage of rich green enhanced by the bronzy red of the young tips, for the entire season until killing frosts put the plant to sleep for the winter.

"If the buds are cut when just unfolding, they retain their beautiful form and color to a remarkable degree. A mighty fine addition to our climbing roses."—Chas. E. F. Gersdorff, Washington, D. C

**Something to Think About.**—It rejoices our soul to get a good healthy kick like the following from Albert Chandler of St. Louis. There is surely room for both kinds of gardeners under the banner of the rose, and we will welcome to the Annual any discussions of the suggestions Mr. Chandler offers.

"The 1929 Annual strikes me—like the rose game itself, of which it is typical—as all the same old sixes and sevens. The thing is getting monotonous. The same old plantings of the same old pinks and reds and yellows, with the same old fuss and feathers about which may be a little better than another.

"Let's try to get something new started to make the game attract a new lot of people.

"As a concrete case of such effort, for example, I am going to try a rose rock-garden. It will take four to five years to work it out, win or lose, but all the while it will challenge a fellow's ingenuity and evoke his best efforts. My first—and present—impression is that Max Graf will look better on a rock-garden than anywhere else, with a little shearing of upright stems. Anyway, you won't have the problem of how to handle, etc., canes over the borders in the grass. I will use Aviateur Blériot, too, if the place is big enough; and Eblouissant will tuck into crevises better than seedlings of Mugho pine. It is all in the air yet, but something to shoot at.

"Let somebody else try something else. What we want nowadays is to make garden pictures. Roses are planted too flat. And what I want in the next Annual is schemes for the landscape use of roses—not just culture and selection. What can we do with them after we get them, to make the most of them?

"To put it in another way, are roses an end in themselves or a beginning? The present membership, as shown by its Annuals, just wants roses, their use being incidental. You see the same attitude in the Dahlia Society. But an entirely different group of people values any flower as garden paint; for them Gruss an Teplitz is more valuable than Etoile de Hollande. The Iris Society goes after these people somewhat. Some of them have a trick that will beautify your pet abomination, Veilchenblau, merely by associating it with a good blue like that of Anchusa, which will absorb the blue of Veilchenblau as it does that in the old iris, Her Majesty, and give a good interesting pink effect—the two harmonizing like the two tints in mertensia. Try it and then think this over."

**Use of Mulch Paper.**—There has been some speculation in regard to the possible value of the new mulch paper so much talked about for mulching roses. The following account of one year's experience on a small bed of roses, sent in by J. V. Proctor, of Monroe City, Mo., is the only direct experience we have heard about. No doubt there are possibilities in this mulch paper, and we should be glad to hear of further trials.

"Mulch paper was put on the bed July 4, the soil being first worked into a saucer-like depression around the bushes, to catch and retain the rainfall. A strip of wood around the bed kept the edges of the paper from blowing, but earth pulled up over the edges would be just as good. Slits were cut in the paper to fit it under the bushes. In the late fall, the two roses under the paper showed a marked improvement over those which were left uncovered, although I selected the most backward bushes to put the paper on; in fact, Lady Hillingdon was pretty far gone with canker at the time.

"I believe this mulch paper is useful. It is not unsightly, saves the work of stirring the soil after each shower, and keeps down weeds. Growth is promoted because it allows more heat from the sun to reach the root system than is possible through a thick dust- or peat-moss-mulch, yet it does not allow this extra heat to dissipate the moisture from the earth, and sets up a moist condition that makes the plant-food in the soil easily available to the roots.

"It also seemed that I had less black-spot on the bushes protected by the mulch paper, but the test-plot was too small to determine anything definite along that line, yet it would seem that the paper would serve as a barrier between the leaves and black-spot spores rising from the soil."

**A Back-Yard Rose-Garden in Omaha.**—The picture facing page 121 was sent to us by M. Urbach, of Omaha, Neb., with an article which he contributed to the symposium which we undertook this year to cover rose-growing conditions in the Central States. Unfortunately, the symposium was crowded out of the Annual, but we append Mr. Urbach's description of his garden which must be a great satisfaction to him:

"The photograph of my rose-garden was taken September 6. You will note the garden contains six beds, a double row of three in a row. The beds are 5 by 14 feet, contain three rows of nine bushes, and are boxed in by using 1 by 4-inch fir lumber, laid on edge. A crushed rock walk, 2 feet wide, between and around each bed makes it very easy to reach every plant.

"My forty climbers and thirty Gruss an Teplitz form a border around three sides of the garden. We use a 4-inch mulch of peat-moss to cover all the beds. This is kept in place by the 1 by 4-inch lumber used for boxing in the beds. I have used peat-moss for years and think I would give up rose-growing entirely if it were unattainable.

"As I write this letter (November 19), I can step to my window, which overlooks my garden, and see dozens of rose blooms, notwithstanding the low temperature of 26 degrees above, which we have had during the past two weeks. I know of no flower that one can get as much pleasure from as the rose, blooming even in this, the blizzard section, from the end of May until the middle of November. How many times when I mention roses to a flower-grower I receive the same reply, 'Too hard to grow; require too much attention!' But I assure you that a bed of 300 gladiolus which I grew last season gave me more work than the entire rose-garden of 250 bushes!"

# New Roses of the World

## AN EDITORIAL SURVEY

The following survey describes 154 new roses. The total for the past dozen years is 1,689, averaging 141 new varieties a year. A laudable tendency toward shorter names is noticeable almost everywhere but Luxembourg. Asterisk (*) before names indicates originator's or introducer's description on Rose Record Card.

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## UNITED STATES AND CANADA

GOLD MEDAL ROSES: *Julien Potin, Lum's Double White, President Herbert Hoover, Reveil Dijonnais.*

*Alma Mater.* HT. (Good & Reese Co., 1929.) Sport of Columbia. Type, Columbia, but lighter in color. Vigorous; free bloomer. Named in honor of Wittemberg College.

**American Pride.* HT. (Nicholas Grillo, 1929.) Sport of Grillodale × Mme. Butterfly. Type, Grillodale, but white. Bud large, long-pointed; flower large, full, very lasting, double, moderately fragrant, pure white, with a slight tint of pink on the tips of outside petals, occasionally no tint at all, borne singly on long, strong stem. Foliage abundant, large, rich green, leathery, disease-resistant. Very vigorous, upright; profuse, continuous.

**Baby Mine.* Poly. (Ralph Moore, 1929.) Seedling of Climbing Cécile Brunner., Type, Cécile Brunner. Bud small, long-pointed; flower small, double, full, lasting, slightly fragrant, sulphur-yellow, varying to butter-yellow, borne several together and in clusters. Foliage sufficient, medium size, light green, soft, disease-resistant. Growth moderate, bushy, compact; free, continuous bloomer. Does not turn pink as does the other so-called Yellow Cécile Brunner.

**Betty Stielow.* HT. (Stielow Bros., 1928.) Sport of Premier. Type, Premier. Bud large, long-pointed; flower large, double, full, very lasting, moderately fragrant, deep dark pink, almost red at times. (Reported last year under the name of *Betty*, to which there was considerable objection.)

**Bonnie Bess.* HT. (Dale Estate, Brampton, Ont., Can., 1929.) Wilhelm Kordes × Seedling 31 (parent Crusader, pollen Sunburst). Type, Templar. Bud medium size, long-pointed; flower medium size, double, high-centered, lasting, slightly fragrant, deep coral-pink, suffused copper, borne singly on long, strong stem. Foliage sufficient, medium size, rich green, leathery. Growth vigorous, upright, bushy; free bloomer.

**Climbing Briarcliff.* Cl.HT. (J. Parmentier, 1929.) Sport of Briarcliff, and like it except habit.

**Climbing Mrs. Charles Bell.* Cl.HT. (Thomasville Nurs., 1929.) Sport of Mrs. Charles Bell; of climbing habit.

*Climbing Radiance.* Cl.HT. (W. D. Griffing, 1927.) Sport of Radiance. Like parent in all respects except that it is of vigorous, climbing growth. Registered 1926.

**Cynthia Ann Parker.* HT. (Jos. W. Vestal & Son, 1929.) Type, Angelus. Bud very large, globular; flower very large, extremely double, full, very lasting, moderately fragrant, snow-white, tinged with yellow or cream, borne singly on long stem. Foliage sufficient, medium size, leathery, light green, disease-resistant. Moderate, upright; free bloomer.

**Editor McFarland.* HT. (Charles Mallerin; Conard-Pyle Co., 1931.) Type, Radiance in plant-habit, ruggedness, persistency, and immunity of foliage, also continuity of bloom. Bud long-pointed; flower semi-double, slightly fragrant, solid pink, with a mysterious veil or suggestion of yellow, giving one the impression of looking at a pink rose through amber glasses—under artificial light this suffusion is more apparent and the whole flower is fairly glowing; generally borne singly on long, strong stem. The large, pointed, arch-shaped petals are edged lighter, the contrast accentuating as the flower ages.

*E. G. Hill.* HT. (E. G. Hill Co., 1929.) Bud very beautiful; flower immense, very lasting, dazzling scarlet, shading to a deeper pure red as it develops, but never showing purple, borne on long stem. Foliage abundant, of fine color. Growth vigorous; very free bloomer.

**Ellen.* HT. (L. C. Gould Co., 1929.) Sport of Premier. Type, Matchless. Bud large, long-pointed; flower large, very double, full, extremely lasting, unvarying dark pink, borne singly on medium to long, strong stem. Foliage sufficient, medium size, rich green, glossy, disease-resistant. Growth very vigorous, upright, bushy; profuse, continuous.

**Grace Noll Crowell.* HT. (Jos. W. Vestal & Son, 1929.) Type, Hill's America. Bud very large, long-pointed; flower very large, extremely double, high-centered, very lasting, moderately fragrant, rose-pink, slightly shaded cream at base, borne singly on long stem. Foliage abundant, medium size, light green, soft, disease-resistant. Growth very vigorous, up-

right, bushy; profuse bloomer. Named in honor of the author of the charming rose poem on page 3.

**Gypsy Queen.* Mult. (Ralph S. Moore, 1929.) Hybrid of Crimson Rambler. Type, Crimson Rambler. Bud small, globular; flower small, double, full, lasting, like Crimson Rambler, borne in clusters. Foliage abundant, large, rich green, wrinkled, *disease-resistant.* Growth very vigorous, climbing, habit like Crimson Rambler but much improved; abundant bloomer in May (California). Bloom-cluster is better arranged and blooms larger than Crimson Rambler.

**Harison Lemon.* AB. (Stephen F. Hamblin, 1929.) Seedling of Harison's Yellow. Type, Harison's Yellow. Bud medium size, globular; flower medium size, semi-double, globular, lasting, moderately fragrant, clear lemon-yellow, borne singly on short stem. Foliage sufficient, small, rich green, disease-resistant. Growth moderate (5 ft.), bushy; abundant bloomer in May and June. Very hardy.

**Harison Salmon.* AB. (Stephen F. Hamblin, 1929.) Seedling of Harison's Yellow. Type, Harison's Yellow. Bud medium size, globular; flower medium size, semi-double, globular, lasting, moderately fragrant, pink and yellow in salmon color, borne singly on short stem. Foliage sufficient, small, rich green. Growth moderate (6 ft.), bushy; profuse bloomer in May and June. Very hardy.

**Joanna Troutman.* HT. (Jos. W. Vestal & Son, 1929.) Seedling of Mme. Alexandre Dreux. Type, Mme. Alexandre Dreux. Bud small, long-pointed; flower medium size, semi-double, open, lasting, moderately fragrant, orange-yellow, borne singly on short stem. Foliage sufficient, medium size, bronze-green, glossy, disease-resistant. Growth moderate, bushy.

**Kathryn.* HW. (Ralph S. Moore, 1929.) Seedling of Hiawatha. Type, Dorothy Perkins. Bud medium size, globular, almost cherry-color; flower medium size, semi-double, open, lasting, intense apple-blossom fragrance, soft clear pink, borne in clusters. Foliage abundant, small, light green, glossy, disease-resistant. Growth vigorous, climbing (long canes reaching as much as 15 to 20 feet); profuse bloomer in April (California). Blooms ten days before Dorothy Perkins.

**Laura Towill.* HT. (Edward Towill; 1929.) Phantom × Buttercup. Type, Mrs. Aaron Ward, but better flower and bud of deeper color. Bud medium size, ovoid, darker than flower; flower medium size, semi-double, cupped, lasting, slightly fragrant, copper-yellow, tending toward copper-pink when open, borne singly on short, strong stem. Foliage sufficient, large, bronzy green, leathery, glossy. Growth vigorous, upright, compact; free bloomer. Bronze Medal, Philadelphia Flower Show, 1929.

**Lum's Double White.* HT. (Carleton Lum; intro. by Totty's, 1930.) Sport of Double White Killarney. Bud very large, long-pointed; flower very large, semi-double, high-centered, lasting, moderately fragrant, purest glistening white, borne several together on medium-length stem. Foliage abundant, large, dark green, leathery. Growth vigorous, upright; profuse, continuous bloomer. Tips freeze. Gold Medal, International Flower Show, New York; Gold Medal, Newark, N. J.

**Margaret Belle Houston.* HT. (Jos. W. Vestal & Son, 1929.) Type, Royal Red. Bud very large, ovoid; flower extremely large, very double, full, very lasting, intensely fragrant, rich velvety crimson, borne singly on long stem. Foliage sufficient, medium size, light green, leathery, disease-resistant. Growth moderate, upright; sparse bloomer.

**Mrs. Percy V. Pennybacker.* HT. (Jos. W. Vestal & Son, 1929.) Seedling of Mme. Butterfly. Type, Mme. Butterfly. Bud medium size, ovoid; flower medium size, double, cupped, lasting, moderately fragrant, peach-pink with silver shadings, borne singly on medium-length stem. Foliage abundant, medium size, bronze-green, leathery, disease-resistant. Growth moderate, bushy; free bloomer.

**New Dawn* (Everblooming Dr. W. Van Fleet). HW. (Somerset Rose Nurs.; intro. by Henry A. Dreer, 1930.) Sport of Dr. W. Van Fleet. Type, Dr. W. Van Fleet. Bud medium size; flower medium size, double, lasting, slightly fragrant, blush-pink, borne singly and several together on long stem. Foliage sufficient, medium size, dark green, glossy. Growth vigorous, climbing (15 to 20 ft.); free, continuous bloomer from June to November. Very hardy.

***Rio Rita.* HT. (Jos. H. Hill Co., 1930 or 31.) Mme. Butterfly × Premier. Type, Mme. Butterfly. Bud large, long-pointed; flower, double, full, very lasting, intensely fragrant, white with tinge of pink, borne singly on long stem. Foliage abundant, large, rich green, glossy, disease-resistant. Growth vigorous, upright; abundant, continuous bloomer.

***Roslyn.* HT. (Edward Towill, 1929.) Souvenir de Claudius Pernet × Buttercup. Type, Souvenir de Claudius Pernet in foliage but deeper in color. Bud medium size, long-pointed, deep orange; flower large, semi-double, full, very lasting, slightly fragrant, golden yellow—more orange back of petals, borne singly on long, strong stem. Vigorous, compact; free.

***Souvenir de Shelby Wallace.* Mult. (Ralph S. Moore, 1929.) Seedling of Cl. Cécile Brunner, and like it but slightly larger. Bud small, long-pointed, salmon-pink; flower small, semi-double, open, not very lasting, slightly fragrant, light salmon-pink, borne in clusters. Foliage sufficient, medium size, dark green, glossy. Growth vigorous, climbing (12 to 15 ft.); abundant, intermittent bloomer.

***Susan Louise.* H.Gig. (Charles E. Adams; intro. by C. H. Stocking, 1929.) Belle of Portugal × unknown variety. Type, Lulu. Bud medium size, long-pointed, deep pink; flower medium size, semi-double, open, fairly lasting, slightly fragrant, flesh-pink, borne singly on average-length and strength stem. Foliage sufficient, disease-resistant. Growth very vigorous (4 to 5 ft.), upright, bushy; profuse blooms (40 to 50), intermittent bloomer (about every six weeks) and very hardy (California).

***Sweet Adeline.* HT. (Jos. H. Hill Co., 1929.) Rapture × Pernet† Type, Rapture. Bud large, long-pointed; flower large, semi-double, full, very lasting, moderately fragrant, rose-pink, borne singly on long, strong stem. Foliage abundant, large, rich green, leathery. Growth very vigorous (4 to 6 ft.), upright; free bloomer.

***Yellow Talisman.* HT. (A. F. Amling Co., 1929.) Sport of Talisman, and like it except it is clear yellow.

## GREAT BRITAIN AND IRELAND

GOLD MEDAL ROSES: *Elizabeth Arden, Flamingo, Gladys Benskin, McGredy's Ivory, Mrs. Sam McGredy, Souvenir of the Old Rose Garden*

*Baby Betty.* Poly. (Burbage Nurs., 1928.) Seedling from Eblouissant. Bud yellow with peculiar red tinge; flower large, clear pink, lighter at base. Foliage dark green, mildew-resistant. Growth dwarf, neat, fairly vigorous; profuse bloomer. Certificate of Merit, N. R. S., 1928.

*Betty Pearson.* HT. (Burbage Nurs., 1929.) Flower of perfect form and wonderful substance, with large, shell-shaped petals of cream color, deepening to apricot at the center.

***Betty Sutor.* HT. (S. McGredy & Son, 1929.) Type, Mme. Abel Chatenay, but greatly improved. Bud large, long-pointed; flower large, double, high-centered, very lasting, moderately fragrant, pale rosy pink, heavily veined rose, reverse bright rosy pink, borne singly, several together, and in clusters on long stem. Foliage abundant, large, light green, glossy, disease-resistant. Growth vigorous, bushy; profuse bloomer from May to November. Very hardy.

*Britannia.* Poly. (Burbage Nurs., 1928.) Type, dwarf Hiawatha. Flower single, crimson with white center. Certificate of Merit, N. R. S., 1928.

*Canary.* HT. (A. Dickson & Sons, 1929.) Type, Shot Silk in growth and foliage, but more vigorous and has a few more petals. Bud light golden yellow, edges flushed cerise; flower of spiral form, medium full, high-centered, moderately fragrant, light golden yellow passing to canary-yellow. Growth upright, branching; profuse, continuous bloomer all season. Certificate of Merit, N. R. S., 1929.

*Chami.* H.Musk. (J. H. Pemberton, 1929.) Flower semi-single, strong musk fragrance, bright rose-pink, yellow stamens, borne in large clusters. Habit bushy; continuous bloomer. Good in autumn.

*Charmaine.* Poly. (Burbage Nurs., 1928.) Flower large, clear shell-pink. Very free bloomer. Award of Merit, R. H. S., 1928.

† Probably Souvenir de Claudius Pernet but we do not know. It may be Angèle Pernet or Souvenir de Georges Pernet.—EDITOR.

*Dorothy Lee.* HT. (Henry Morse & Sons, 1929.) Type, William F. Dreer in color, but more refined. Bud opens well in all weathers; flower fairly full, every one perfect, soft silvery shell-pink, base of petals golden yellow, which sometimes suffuses the entire flower. Foliage glossy green, practically mildew-proof.

*Duchess of Montrose.* HT. (Dobbie & Co., 1929.) Flower large, handsome, vermilion-crimson.

**Elizabeth Arden.* HT. (George Prince, 1929.) Edith × Mrs. Herbert Stevens. Type, Mme. Butterfly. Bud large, long-pointed; flower large, very double, full, very lasting, intensely fragrant, pure white, borne singly on long stem. Foliage abundant, large, dark green, leathery, disease-resistant. Growth very vigorous (2 to 3 ft.), upright, compact; profuse, continuous bloomer from June to October. Very hardy. Gold Medal, N. R. S., 1929.

*Flamingo.* HT. (A. Dickson & Sons, 1929.) Bud very long-pointed; flower medium size, spiral shape, double, high-centered, intensely fragrant, bright geranium-red passing to glowing rosy cerise. Growth vigorous, hardy; free bloomer. Awarded Clay Cup for most fragrant rose of year; Gold Medal, N. R. S., 1928; Gold Medal, R. A. S., 1928.

*Fortuna.* H.Musk. (J. H. Pemberton, 1929.) Flower large (4½ in. diam.), semi-single, moderately fragrant, soft China pink, borne in clusters. Growth dwarf; continuous bloomer. Good in autumn.

*Gladys Benskin.* HT. (A. Dickson & Sons; intro. in U. S. by Henry A. Dreer, 1929.) Bud large, long-pointed; flower fairly large, beautifully formed, full, double, high-centered, richly fragrant, rose-cerise, shaded orange, deeper orange at base, reverse salmon-cerise over golden yellow, deep yellow veining. Foliage disease-resistant. Growth vigorous, upright; very free, continuous bloomer. Hardy. Certificate of Merit, N. R. S., 1928; Gold Medal, N. R. S., 1929.

*Golden Glory.* HT. (Dobbie & Co., 1929.) Flower deep buttercup-yellow.

*Golden Severine.* HT. (Henry Morse & Sons, 1929.) Flower deep golden yellow. Its habit, freedom, and type in some respects is not unlike Severine.

*Impress.* HT. (A. Dickson & Sons; intro. in U. S. by C. U. Liggit, and Henry A. Dreer, 1929.) Bud large, ovoid, cardinal-red, shaded orange; flower very large, double (40 to 45 petals), full, extremely lasting, salmon-cerise, suffused with a luminous golden sheen. Foliage dark green, glossy. Growth vigorous, upright; free, continuous bloomer.

*Jarvis Brook.* HT. (Stuart Low & Co., 1928.) Flower large, full, moderately fragrant, carmine, reverse orange. Growth vigorous; free, continuous bloomer.

**Joan Cant.* HT. (B. R. Cant & Sons, 1929.) Bud very large, long-pointed; flower very large, extremely double, full, very lasting, intensely fragrant, salmon-pink center, brighter on outside of petals, borne several together on long, strong stem. Foliage abundant, large, light green, leathery, disease-resistant. Growth vigorous (2 ft.), bushy; profuse, continuous bloomer from May to November. Very hardy.

*Joy.* HT. (G. Beckwith & Son, 1929.) Bud rich tangerine-red, shaded coppery bronze and orange; flower well-shaped, double, full, high-centered, moderately fragrant, rose-pink, suffused tangerine and Lincoln-red, with yellow base. Foliage bronzy green when young, leathery, disease-resistant. Growth vigorous, free-branching; very free, continuous bloomer. Hardy.

**Lady Leslie.* HT. (S. McGredy & Son, 1929.) Bud large, long-pointed to ovoid; flower large, double, high-centered, very lasting, intensely fragrant, rosy scarlet, passing to scarlet-carmine suffused with saffron-yellow on a yellow base, borne singly, several together, and in clusters on long stem. Foliage abundant, large, dark green, leathery, glossy, disease-resistant. Growth vigorous, upright; profuse, from May to November. Certificate of Merit, N. R. S., 1927.

*Maid of Kent.* HT. (W. E. B. Archer & Daughter, 1929.) Ophelia × Mrs. W. J. Grant. Flower finely formed, shell-pink, fragrant.

*Marchioness of Linlithgow.* HT. (Dobbie & Co., 1929.) Flower very shapely, rich velvety crimson.

**McGredy's Ivory.* HT. (S. McGredy & Son, 1929.) Bud very large, long-pointed; flower very large, double, high-centered, very lasting, moderately fragrant, soft, delicate

creamy white that merges into a yellow base, borne singly, several together, and in clusters on long, strong stem. Foliage abundant, large, leathery, glossy, dark green, disease-resistant. Growth vigorous, upright; profuse, continuous bloomer. Gold Medal, N. R. S., 1928.

*Mrs. Hilton Brooks.* HT. (F. Cant & Co., 1929.) Flower large, double, high-centered, very lasting, with intensely sweet fragrance, saffron-yellow, deeper at base, suffused with pink and carmine—very rich color that does not fade, borne on long, strong stem. Foliage dark olive-green, disease-resistant. Growth vigorous, upright; free, continuous bloomer.

**Mrs. Sam McGredy.* HT. (S. McGredy & Son, 1929.) Bud large, long-pointed; flower large, double, high-centered, very lasting, moderately fragrant, scarlet-coppery-orange, heavily flushed with Lincoln red on the outside of the petals, borne singly, several together, and in clusters on long stem. Foliage abundant, medium size, glossy bronze-green, disease-resistant. Growth vigorous, upright; profuse, continuous bloomer. Very hardy. Certificate of Merit, N. R. S., 1928; Gold Medal, N. R. S., 1929.

*Muriel.* HT. (W. E. B. Archer & Daughter, 1929.) Brilliant red.

*Perfume.* HT. (George Marriott; intro. by G. Beckwith & Son, 1929.) Bud long-pointed; flower has 15 petals, very fragrant, fiery, velvety deep crimson. Growth vigorous, branching; free, continuous bloomer. "Abol" Challenge Cup for best rose with true old rose fragrance; Certificate of Merit, N. R. S.; Award of Merit, R. H. S.

**Portadown Bedder.* HT. (S. McGredy & Son, 1929.) Bud small, long-pointed; flower medium size, double, high-centered, very lasting, moderately fragrant, glowing scarlet-cerise on an orange ground; reverse orange-yellow, with a rich cerise flush that deepens toward the edge, borne singly, several together, and in clusters on long stem. Foliage abundant, medium size, glossy dark green, disease-resistant. Growth vigorous, bushy; profuse, continuous bloomer. Very hardy. Certificate of Merit, N. R. S., 1926.

**Prestatyn Rover.* HT. (J. Lavender, 1929.) Alfred Colomb × Mrs. Wemyss Quin. Type, Prince Charming. Bud medium size, ovoid, dark crimson; flower medium size, double, open, very lasting, slightly fragrant, salmon-pink, outside of petals darker, borne several together on long stem. Foliage sufficient, medium size, leathery, light green. Growth very vigorous (6 to 8 ft. first season), climbing; abundant, bloomer in June and July and again in mid-August. Very hardy.

*Rachel.* HT. (J. H. Pemberton, 1929.) Flower large, full, high-centered, orange-buff, flushed carmine, borne on strong stem. Foliage dark green. Growth very vigorous, upright; very free, continuous bloomer from June to October.

*Rosa* × *Highdownensis.* Sp. This plant was raised from seed of *R. Moyesi*, and it is thought that the other parent was probably K. of K. (HT.) as that was the only rose near the seed parent. Received an Award of Merit as a hardy ornamental-fruited shrub when shown by Major F. Stern, at the Royal Horticultural Society's meeting on Sept. 11, 1928.

**Souvenir of the Old Rose Garden.* HT. (B. R. Cant & Son, 1929.) Type, Baroness Rothschild. Bud very large, globular; flower very large, extremely double, full, globular, very lasting, intensely fragrant, silvery pink, brighter on inside of petals, borne several together on strong stem. Foliage abundant, large, glossy, light green, disease-resistant. Growth vigorous (2 ft.), bushy; profuse, continuous bloomer. Very hardy. Gold Medal, N. R. S., 1928.

*Swansdown.* HT. (A. Dickson & Sons, 1928.) Bud large, long-pointed; flower of beautiful spiral formation, full, faintly scented, creamy white with deeper cream center, borne on long, strong stem. Foliage olive-green. Fairly vigorous; very free, continuous bloomer. Hardy. Certificate of Merit, N. R. S., 1928; Award of Merit (unanimous), R. H. S., 1928.

*W. E. Chaplin.* HT. (Chaplin Bros., 1929.) Type, Lord Charlemont, but better. Flower large to very large, double, full, high-centered, lasting, moderately fragrant, deep crimson, deepening to carmine-crimson (does not blue or burn), borne on long, strong stem. Foliage large, rich green, disease-resistant. Growth very vigorous, upright, bushy; very free, continuous bloomer.

## FRANCE

GOLD MEDAL ROSES: *Président Deville, Mrs. Pierre S. du Pont, Président Charles Hain.*

**Abricot.* HT. (Barbier & Co., 1929.) Mrs. Aaron Ward × J. C. N. Forestier. Bud medium size, globular, coppery red; flower medium size, semi-double, open, cupped, rather lasting, moderately fragrant, apricot and coral-salmon, reverse coral-red, borne several together on medium-length stem. Foliage abundant, medium size, rich green, glossy, disease-resistant. Growth vigorous, upright, bushy; continuous bloomer.

**Ami Léon Chenault.* Poly. (A. Nonin Fils, 1929.) Sport of Lafayette. Type, Lafayette. Bud medium size, globular; flower very large for the class, semi-double, open, very lasting, slightly fragrant, dark garnet-crimson, slightly striated white, borne in clusters on medium-length stem. Foliage abundant, large, rich green, leathery, disease-resistant. Growth very vigorous, dwarf (1½ ft.); profuse, continuous bloomer. Very hardy.

*Aristide Briand.* HW. (A. Penny, 1928.) Yseult Guillot × unnamed variety. Flower large for this class, quite double, very lasting, sweetly scented, mauve-pink, becoming clearer as with age, borne in clusters of 10 to 20. Foliage glossy, disease-resistant. Growth very vigorous, climbing; free bloomer from June to November. First Class Premium, Société Nationale d'Horticulture de France.

**Climbing Joseph Guy.* Mult. (A. Nonin fils, 1929.) Sport of Joseph Guy (Lafayette). Bud medium size, globular; flower very large for the class, semi-double, open, very lasting, slightly fragrant, bright red, borne in clusters on medium-length, strong stem. Foliage disease-resistant. Growth very vigorous, climbing (5 to 6½ ft.); profuse, continuous bloomer. Very hardy.*

*Cl. Mme. Segond Weber.* Cl.HT. (L. Reymond, 1929.) Sport of Mme. Segond Weber. A climbing sport of vigorous growth and very free-flowering character.

*Cl. Odette Foussier.* Cl.HT. (C. Chambard, 1929.) Sport of Odette Foussier, and like it except that it is of climbing habit. Flower salmon-rose, shaded chrome-yellow.

*Cl. Pax Labor.* Cl.HT. (Jean Gaujard, 1929.) Sport of Pax Labor and like it in everything but habit.

*Comtesse de la Morandière.* HT. (C. Chambard, 1929.) Bud long-pointed, cochineal-carmine; flower large, double, very fragrant, shrimp-pink, shaded coral-orange, reverse coral-red, borne on long, strong stem. Foliage abundant, purplish green, disease-resistant. Growth very vigorous, upright, bushy; abundant, continuous bloomer.

*Diane de Broglie.* HT. (C. Chambard, 1929.) Bud splendid, coral, with golden border; flower very large, double, full, cupped, very lasting, moderately fragrant, with large coral-orange petals of great substance, borne singly on strong stem. Foliage large, bright dark green, disease-resistant. Growth very vigorous, upright, slightly diverging; abundant bloomer. Awarded Grand Gold Medal of the King, 1929, at International Contest of New Roses, Pedralbes, Barcelona, Spain.

*Enfant d'Orléans.* Poly. (E. Turbat & Co., 1929.) Flower double, globular, Neyron-rose-red, slightly tinted purple, fading lighter with age, borne in clusters of 20 to 25. Foliage rich green. Vigorous growth; abundant bloomer.

*Jacques Carroy.* Poly. (E. Turbat & Co., 1929.) Flower peony-formed, carmine, slightly tinted purple and velvety at center (stands well in all weathers, and resists sun very well), borne in clusters of 15 to 20. Half-dwarf; abundant bloomer.

*Jeanne Nicod.* HT. (A. Schwartz, 1929.) Flower large, very full, opens well, pure white, tinted cream at center. Foliage light green. Growth moderate; profuse bloomer.

*Joannes Ginet.* HT. (Jean Gaujard, 1929.) Sport of The Queen Alexandra Rose. Flower white, tinted cream, edged oriental red. Foliage bright green, disease-resistant.

*Madeleine Weidert.* Mult. (Louis Walter, 1928.) Tausendschön × Rosel Dach. Type, Tausendschön. Flower globular, tender rose. Vigorous climber.

*Evidently similar to Auguste Kordes mentioned on page 163.—EDITOR.

*Maneca.* HT. (Pernet-Ducher; intro. by Jean Gaujard, 1929.) Bud long-pointed, brilliant, uniform salmon-crimson; flower double, very full, extremely lasting, moderately fragrant, flesh-pink, borne singly on long, strong stem. Foliage brilliant bronzy green, leathery. Growth vigorous, bushy.

*Marie Dietrich.* HW. (Louis Walter, 1928.) Léontine Gervais × Eugénie Lamesch. Type, Léontine Gervais in bud. Flower yellowish red, passing to white. Foliage bright green, glossy, disease-resistant. Profuse.

*Marie-Louise Poncet.* HT. (Jean Gaujard, 1929.) Bud long-pointed; flower very full, coppery rose, passing to pale coppery pink, reverse carmine-salmon, passing to dark flesh-pink, borne on strong stem.

*Mme. Cheine Duguy.* HT. (A. Schwartz, 1929.) Flower large, full, double, opens well, carmine-cerise-red, shaded brilliant scarlet, petals slightly serrated and rolled, giving the flower a unique appearance. Foliage brilliant dark green, disease-resistant. Growth vigorous, bushy; abundant bloomer.

**Mme. Eugène Picard.* HT. (F. Gillot, 1929.) Sport of Ariel. Bud medium size, oval, carmine-red; flower medium size, semi-double, high-centered, lasting, moderately fragrant, yellow, borne several together on medium-length, strong stem. Foliage abundant, medium size, dark green, leathery. Growth vigorous, bushy; abundant, continuous bloomer.

**Mme. Georges Cozon.* HT. (J. Laperrière, 1929.) Mme. Charles Lutaud × unnamed Pernetiana. Type, Louise Catherine Breslau. Bud very large, long-pointed to oval, rose Nilson; flower very large, semi-double, cupped, very lasting, shrimp-pink, shaded yellow on reverse of petals, borne singly. Foliage sparse, medium size, rich green, leathery, glossy. Growth vigorous, bushy; free, continuous bloomer. Very hardy. Silver Medal, Saverne, 1928.

*Mme. G. Forest Colcombet.* HT. (C. Mallerin; intro. by Grandes Roseraies, 1928.) Type, Hadley, but better. Bud long-pointed, brilliant carmine; flower very large, deep carmine, strongly illuminated with scarlet (color very constant and brightens in hot weather), borne on long, strong stem. Foliage dark green. Growth very vigorous, upright, bushy; profuse.

*Mme. Henri Paté.* HT. (Jean Gaujard, 1929.) Souvenir de Claudius Pernet × unnamed seedling. Type, Ville de Paris in growth; Mabel Morse in color. Bud very long-pointed; flower very lasting, opens well in all weathers, pure golden sulphur-yellow, very large petals. Foliage sufficient, bright green, very large, disease-resistant. Growth very vigorous; profuse bloomer. Very hardy. Award of Merit, First Class, Société Nationale d'Horticulture de France.

*Mme. Henri Pelley.* HT. (C. Richardier, 1928.) Bud pale yellow; flower beautiful transparent cream-yellow. Foliage dark green, disease-resistant. Growth vigorous, bushy.

**Mrs. Pierre S. du Pont.* HT. (Ch. Mallerin; intro. in U. S. by Conard-Pyle Co., 1929.) Ophelia × unnamed seedling of Austrian Copper parentage. Type, Mme. Butterfly. Bud medium size, long-pointed, reddish gold; flower medium size, semi-double, cupped, very lasting, moderately fragrant, deep golden yellow, becoming slightly lighter with age, borne singly or several together on stem of average length. Foliage abundant, rich green, disease-resistant. Growth vigorous (2 ft.), compact; profuse, continuous bloomer. Gold Medals: Société Nationale d'Horticulture de France, 1927; Saverne, 1927; Lyons, 1928; Rhone, 1928; Bagatelle, 1929. Harding Prize ($100), 1928.

**Président Briand.* HP. (Ch. Mallerin; intro. in U. S. by Conard-Pyle Co., 1929.) Frau Karl Druschki × unnamed seedling of Austrian Brier parentage. Type, Mrs. Wakefield Christie-Miller. Bud and bloom very large, double, high-centered, globular, very lasting, moderately fragrant, pink with salmon suffusion, borne singly on strong stem. Foliage abundant, large, rich green, wrinkled, mildews. Growth vigorous (about 3 ft.), upright, compact; profuse, intermittent bloomer. Very hardy.

*Président Charles Hain.* HT. (L. Reymond, 1929.) Souvenir de Claudius Pernet × Louise Catherine Breslau. Bud enormous, long-pointed; flower very large, well-formed, intensely fragrant, golden yellow, center dark yellow, delicately shaded orange, reverse of petals clearer golden yellow, borne singly on long, strong stem. Growth very vigorous, branching;

free, continuous bloomer from June to October. Gold Medal, Special Exhibition of New Roses, Troyes, 1928.

**Primevère.* HW. (Barbier & Co., 1929; intro. in U. S. as Primrose by Henry A. Dreer.) *R. Wichuraiana* × Constance. Bud medium size to large, egg-yolk yellow; flower large, double, full, open, lasting, slightly fragrant, bright primrose-yellow, passing to canary-yellow, borne several together on long stem. Foliage abundant, medium size, rich green, glossy, disease-resistant. Growth very vigorous, climbing, and trailing; abundant bloomer for four weeks in May and June. Very hardy.

*Rudolph Valentino.* HT. (Pernet-Ducher; intro. in U. S. by Henry A. Dreer, 1929.) Flower very large, double, full, delicately fragrant, lively shade of shrimp-pink or coral-red, with a golden coppery suffusion which is heightened by the reflection from the golden base and reverse of petals. Growth vigorous; free, continuous bloomer. Different from any other rose in coloring and formation, being artistically and informally arranged.

**Rustica.* H.AB. (Barbier & Co., 1929.) Mme. Edouard Herriot × Harison's Yellow. Type, Austrian Briar. Bud medium size, globular, yellow, tinted red; flower medium size, semi-double, full, open, lasting, moderately fragrant, straw-yellow and gold, apricot at center, outside citron-yellow, borne several together on medium-length stem. Foliage abundant, medium size, rich green, glossy. Growth very vigorous, semi-climbing; profuse bloomer for four weeks in May and June. Very hardy.

*Souvenir de Madeleine Rouillon.* HT. (P. Bernaix, 1929.) Manon × Elvira Aramayo. Bud long-pointed, carmine-orange, chrome-yellow base; flower large, double, full, cupped, moderately fragrant, carmine-orange on vermilion base. Foliage bright green. Hardy, vigorous; and a profuse bloomer.

**Vermillon.* HT. (Barbier & Co., 1929; intro. by Henry A. Dreer in U. S.) Constance × Paul's Scarlet Climber. Bud medium size, ovoid, dark vermilion, tinted yellow; flower medium size, semi-double, open, cupped, lasting, slightly fragrant, scarlet-vermilion, tinted orange, yellow at base of petals, borne several together on medium-length stem. Foliage sufficient, medium size, rich green, glossy, disease-resistant. Growth vigorous, upright, bushy; abundant, continuous bloomer. Very hardy.

## GERMANY

*Belvédère.* Poly. (H. Kiese & Co., 1928.) Eblouissant × Château de Clos Vougeot. Flower very large, double, full, dark red with velvety shading. Growth vigorous, dwarf; free bloomer till frost.

*Bohemia.* HT. (Jan Böhm, 1928.) Seedling of Mrs. Henry Morse × Mrs. Franklin Dennison. Bud long-pointed, of ideal form; flower very large, double, extremely full, moderately fragrant, pure rose-pink, base of petals primrose-yellow, borne on long, strong stem. Growth vigorous, free-branching.

*Climbing Hadley.* Cl.HT. (V. Teschendorff, 1927.) Sport of Hadley. A fine climbing form of Hadley.

**Direktor Rebhuhn.* HT. (W. Kordes Söhne, 1929.) Mme. Butterfly × Angèle Pernet. Type Mme. Butterfly in habit. Bud very large, ovoid, orange, opens well; flower very large, extremely double, full, cupped, very lasting, intensely fragrant, orange with a deeper reddish center, borne singly and several together on long, strong stem. Foliage abundant, large, rich green, leathery, glossy, disease-resistant. Growth vigorous (2 ft.), upright, open; free, intermittent bloomer. Tips freeze.

*Dr. Eckener.* H.Rug. (Chief Garden Inspector Berger; intro. by V. Teschendorff, 1930.) An improvement on the hardy park roses. Flower large, yellow, tinted with orange. Growth very vigorous, healthy.

**Dr. F. Weigand.* HT. (Chr. Weigand, 1930.) Mme. Caroline Testout × Hadley. Type, Hadley. Bud large, long-pointed; flower large, double, high-centered, lasting, slightly fragrant, cherry-red, borne singly on long stem. Foliage normal, large, dark bronzy green, leathery. Growth very vigorous, upright, bushy; abundant, continuous bloomer from May to November. Tips freeze.

*Druschki Rubra* (Red Frau Karl

Druschki). HP. (P. Lambert; intro. by Conard-Pyle Co. in U. S., 1929.) Frau Karl Druschki × Luise Lilia. Type, Frau Karl Druschki, and like it in all respects except that flower is crimson-red and moderately fragrant.

**Erik Hjelm.* HT. (W. Kordes Söhne, 1929.) Lieutenant Chauré × Sachsengruss. Type, Mme. Caroline Testout in plant; Mrs. John Laing in bloom. Bud large, long-pointed, pure pink; flower very large, extremely double, full, high-centered, very lasting, moderately fragrant, pure salmon-pink, borne several together on long, strong stem. Foliage abundant, medium size, light green, leathery, wrinkled, disease-resistant. Growth very vigorous (2 ft.), upright, bushy; abundant, intermittent bloomer from June to November. Very hardy.

**Frans Leddy.* Poly. (de Ruyter; intro. by P. van Nes, 1927.) Type, Mrs. W. H. Cutbush. Bud small, globular, bright crimson; flower small, double, full, lasting, light orange-red, turning to pink. Foliage sufficient, small, light green, glossy, disease-resistant. Growth moderate, dwarf; abundant, continuous bloomer from June to November. Very hardy.

*Frau Marie Bromme.* Poly. (Wirtz & Eicke, 1928.) Sport of Dr. Krater. Fine form, full, bright dark red.

*Frau Mathilde Batz.* HT. (J. Felberg-Leclerc, 1929.) Unnamed seedling × Ophelia. Bud long-pointed, pure white with greenish tinge; flower large, double, full, very fragrant, pure white, yellow stamens, borne on long, strong stem. Foliage bright, disease-resistant. Vigorous; free bloomer.

*Hermann Lindecke.* HT. (H. Lindecke, 1929.) Sport of General-Superior Arnold Janssen. Type, La France. Flower large, whitish pink, reverse salmon-pink.

*Hessengruss.* HT. (Heinrich Thonges, 1928.) Sport of Laurent Carle. Very large, full, moderately fragrant, deep pink, outside carmine-rose.

*J. Böhm.* HT. (Jan Böhm, 1928.) King George V × Hugh Dickson. Type, Hugh Dickson, but better. Flower large, well-formed, full, double, intensely fragrant, bright blood-red that does not burn in the sun or turn blue with age, borne on long, strong stem. Foliage handsome, disease-resistant. Growth vigorous, upright, free-branching; very free, continuous.

*M. Geier.* HT. (J. Felberg-Leclerc, 1929.) Augustus Hartmann × Admiral Ward. Flower large, double, full, finely formed, high-centered, fiery dark carmine, shaded darker, borne singly on long, strong stem. Foliage large, dark green, leathery, disease-resistant. Growth vigorous, upright; abundant bloomer.

*Mühle Hermsdorf.* HW. (E. Dechant, 1928.) *R. wichuraiana* × Gruss an Zabern. Flower full, double, very fragrant, pure white. Foliage large. Growth vigorous; free bloomer. All blooms open at same time.

*Rankende The Queen Alexandra Rose.* Cl.HT. (H. Lindecke; intro. by W. Kordes Söhne, 1929.) Sport of The Queen Alexandra Rose, and like it, but with a climbing habit.

*Schöne von Marquardt.* HW. (E. Clauberg, 1928.) Sport of Sodenia. Large, bright, dark red flowers.

**Schwabenland.* H.Rug. (Berger, Komotan; intro. by Wilhelm Pfitzer, 1928.) Rugosa seedling × Elizabeth Cullen. Bud large to very large, globular; flower large to very large, extremely double, full, open, very lasting, moderately fragrant, amaranth-pink, borne singly on long, strong stem. Foliage sufficient, large, rich green, leathery, disease-resistant. Growth very vigorous (2 ft.), upright; profuse, continuous bloomer from June to October. Very hardy.

**Stuttgart.* HT. (Berger, Komotan; intro. by Wilhelm Pfitzer, 1928.) Edith Cavell × Franklin Dennison. Type, Ville de Paris. Bud medium size, long-pointed; flower medium size, double, lasting, moderately fragrant, pure yellow, borne singly on long stem. Foliage sufficient, medium size, rich green, leathery, disease-resistant. Growth moderate (1½ ft.), bushy; free, bloomer from June to October. Uninjured when covered with soil.

**Vaterland.* HT. (Berger, Komotan; intro. by Wilhelm Pfitzer, 1928.) National Emblem × Earl Haig. Type, Hadley. Bud large, ovoid; flower large, double, full, lasting, moderately fragrant, dark red with coppery reflexes, borne singly on long stem of average strength. Foliage sufficient, medium size, bronzy green, leathery, disease-resistant. Growth vigorous (1¼ to 2 ft.), bushy; abundant, continuous bloomer from June to October. Uninjured when covered with soil.

## ROUMANIA

NOTE.—Very inadequate descriptions of these Roumanian roses have appeared in previous Annuals, as noted, but we are glad to include here these complete descriptions which the originator, Mr. Arpád Mühle, has so kindly sent to us.

**Alexander Marghiloman.* HT. (Arpád Mühle, 1928.) Seedling of Harry Kirk. Type, Mrs. Charles Lamplough. Bud very large, ovoid; flower very large, extremely double, full, high-centered, very lasting, slightly fragrant, cream-white, with a salmon-colored center, borne singly on long stem. Foliage abundant, large, rich green, glossy, disease-resistant. Growth very vigorous, upright; abundant, intermittent bloomer. Freezes to 3 to 4 inches. (A.R.A., 1929.)

**Banater Rose.* HT. (Arpád Mühle, 1927.) Seedling from Harry Kirk. Type, Natalie Böttner, but not so double. Bud large, globular; flower large, double, full, globular, lasting, slightly fragrant, cream-white, orange-yellow center, borne in clusters on long stem. Foliage abundant, large, bronzy green, leathery, disease-resistant. Growth vigorous, upright; profuse, intermittent bloomer. Freezes to 3 to 4 inches. (A.R.A., 1929.)

**Chateau Pelles.* HT. (Arpád Mühle, 1927.) Seedling of Harry Kirk. Type, Souvenir de la Malmaison, but not so double. Bud medium size, ovoid to globular, cream-white; flower medium size, double, cupped, fairly lasting, slightly fragrant, tender pink shaded salmon, borne several together on short stem. Foliage sufficient, small, rich green, glossy, mildews. Growth moderate, bushy, dwarf; free, intermittent bloomer. Freezes to 3 to 4 inches. (A.R.A., 1927.)

**Dame Blanche* (White Lady). HT. (Arpád Mühle, 1927.) Seedling from Stadtrat Glaser. Type, Souvenir de la Malmaison. Bud medium size, ovoid; flower medium size, double, high-centered, very lasting, moderately fragrant, pure white with green tint, borne several together on average-strength stem. Foliage abundant, medium size, light green, soft, disease-resistant. Growth vigorous, upright; continuous bloomer. Freezes to 3 to 4 inches. (A.R.A., 1928.)

**Die Präsidentin.* HT. (Arpád Mühle, 1928.) Seedling from Harry Kirk, and resembles it. Bud large, long-pointed; flower medium size, semi-double to double, high-centered, lasting, slightly fragrant, marble-white with soft yellow center, borne several together on average-strength stem. Foliage sufficient, medium size, dark green, glossy, disease-resistant. Growth moderate, dwarf; abundant, continuous bloomer. Freezes to 3 to 4 inches. (A.R.A., 1929.)

**Dr. Ernst Mühle.* HT. (Arpád Mühle, 1928.) Seedling from Mme. Edmée Metz, and resembles it. Bud very large, globular; flower very large, extremely double, globular, full, very lasting, moderately fragrant, rose-pink, with a little salmon-white reflex, borne several together on long stem. Foliage large, bronzy green, disease-resistant. Growth vigorous, bushy; continuous bloomer. Freezes to 3 to 4 inches. (A.R.A., 1929.)

**Fritz Schrödter.* HT. (Arpád Mühle, 1928.) Seedling from Hortulanus Budde. Type, Hortulanus Budde, but with very double flowers. Bud large, ovoid; flower large, double, full, very lasting, moderately fragrant, brilliant dark scarlet, borne several together on medium-length stem. Foliage sufficient, medium size, bronzy green, soft, disease-resistant. Growth vigorous, bushy; profuse bloomer from June to November. (A.R.A., 1929.)

**Grafin Minnie Schaffgotsch.* HT. (Arpád Mühle, 1928.) Clio (HP.) × unnamed Hybrid Tea. Type, Hybrid Perpetual. Bud medium size, globular; flower medium size, very double, full, globular, lasting, slightly fragrant, cream-white with a pink center, borne singly on long stem. Foliage sufficient, large, light green, soft, disease-resistant. Growth vigorous, upright; intermittent bloomer. Freezes to 3 to 4 inches. (A.R.A., 1929.)

**Princesse Yvonne Ghika.* HT. (Arpád Mühle, 1927.) Seedling from Stadtrat Glaser. Type, Souvenir de la Malmaison. Bud medium size, globular; flower medium size, double, globular, lasting, moderately fragrant, alabaster-white, with salmon center, borne several together on medium-length stem. Foliage abundant, medium size, dark green, glossy. Growth

moderate, bushy; abundant, continuous bloomer. (A.R.A., 1927.)

**Reine Maria de Roumania.* HT. (Arpád Mühle, 1927.) Seedling from Stadtrat Glaser. Type, Ophelia. Bud medium size, long-pointed; flower large, double, high-centered, lasting, marble-white, with yellow center, borne singly on long stem. Foliage sufficient, medium size, dark green, leathery. Growth moderate, bushy, dwarf; abundant, intermittent bloomer. Freezes to 3 to 4 inches. (Listed as Queen Marie of Roumania in A.R.A., 1928.)

**Rose Noble.* HT. (Arpád Mühle, 1927.) Seedling of Mme. Caroline Testout, and like it, but has long buds. Bud large, long-pointed; flower large, semi-double, high-centered, very lasting, moderately fragrant, silvery pink, borne several together on long stem. Foliage abundant, large, rich green, glossy. Growth very vigorous, upright; profuse bloomer. Freezes to 3 to 4 inches. (A.R.A., 1928.)

## NETHERLANDS

GOLD MEDAL ROSES: *Gloria Mundi, Max Vogel.*

**Annette Gravereaux.* HT. (M. Leenders & Co., 1929.) Mevrouw C. van Marwyk Kooy × Golden Emblem. Bud very large, ovoid; flower very large, double, lasting, moderately fragrant, lemon-yellow, shaded orange-cadmium, borne singly on long, strong stem. Foliage sufficient, medium size, dark green, disease-resistant. Growth vigorous, upright; abundant bloomer. Nos Jungunt Rosæ: Certificate of Merit and Great Silver Gilt Medal; Prize of Honor, G.R.S.; Certificate of Merit, R.H.S. of Holland.

**Gloria Mundi.* Poly. (G. de Ruyter; intro. by Sliedrecht & Co. and V. Teschendorff, 1929.) Sport of Superbe. Flower large for the class, fully double, very lasting, double, orange-scarlet, borne in clusters. Foliage abundant, medium size, light green, glossy. Growth vigorous, upright, bushy; free, intermittent bloomer for ten weeks, from July to September. Tips freeze. Aalsmeer (Holland), 1928: Gold Medal as new rose; Gold Medal for the best new rose not yet in trade; Silver Cup for the novelty at this show. Award of Merit, R.H.S. Flower Show (Chelsea), 1928. D.R.S. Show, The Hague (Holland), 1928: Gold Medal as new rose; Gold Medal as Extra Prize of Honor for best novelty. First in class of new Polyanthas not yet in trade at Special Rose Show, Rotterdam, 1929. First Class Certificate (highest possible award), Royal Dutch Horticultural Society, Spring Show, Rotterdam, 1929. First Class Certificate, Danish Horticultural Society, Spring Show, Copenhagen (Denmark), 1929.

*Julie Strahl.* HT. (Leenders Bros., 1928.) Lady Greenall × Gorgeous. Bud large, long-pointed, elegant form, opens well; flower large, double, very full, intensely fragrant, nasturtium-red on golden yellow ground, passing to golden yellow with age, generally borne singly on long, strong stem. Foliage dark green, glossy, disease-resistant. Growth vigorous, free-branching; abundant bloomer.

**League of Nations.* HT. (M. Leenders & Co., 1929.) Frau Felix Tonnar × Solliden. Bud large, long-pointed; flower large, semi-double, open, lasting, moderately fragrant, reddish lilac, shaded salmon-pink, borne singly on stem of average length and strength. Vigorous, bushy; abundant bloomer.

**Magnifique.* Poly. (G. de Ruyter; intro. by Sliedrecht & Co., 1928.) Sport from Orléans Rose. Flower large, semi-double, open, cupped, lasting, clear pink, like Dorothy Perkins, borne in clusters. Foliage sufficient, large, rich green, glossy. Growth vigorous, dwarf; free, intermittent bloomer for ten weeks in July, August, and September. Tips freeze. Silver-Gilt Medal, Aalsmeer, 1928.

**Max Vogel.* HT. (M. Leenders & Co., 1929.) Fritz Maydt × Lilly Jung. Bud large, ovoid; flower large, very double, full, extremely lasting, intensely fragrant, coppery orange, borne singly on medium-length, strong stem. Foliage abundant, large, bronzy green, disease-resistant. Growth vigorous, upright; abundant, continuous bloomer. Gold Medal, The Hague; Silver Medal, Saverne; Certificate of Merit, Nos Jungunt Rosæ; Prize of Honor, G.R.S.; Certificate of Merit, R.H.S. of Holland.

*Orange Marvel.* Poly. (Van der Vis & Co., 1928.) Sport of Miss Edith

Cavell, salmon-orange. First Class Certificate, Pomological Society, Holland.

*Paula Mayer.* T. (Leenders Bros., 1929.) Mme. Edmée Metz × Betty Uprichard. Bud long-pointed; flower large, semi-double, extremely fragrant, brilliant silvery rose-carmine, reverse yellowish vermilion-pink, borne singly on long, strong stem. Foliage brilliant dark green, disease-resistant. Growth vigorous, branching; profuse bloomer.

**Président Deville.* HT. (M. Leenders & Co., 1929.) Fritz Maydt × Mme. Budde. Bud large, long-pointed; flower large, very double, full, lasting, moderately fragrant, cochineal-red, borne singly on medium-length, strong stem. Foliage abundant, large, dark green. Growth vigorous, bushy; profuse, continuous bloomer. Gold Medals: Bagatelle, Saverne; Silver Medal, Nos Jungunt Rosæ; Prize of Honor, R.H.S. of Holland; Cert. of Merit, G.R.S.

## LUXEMBOURG

*Josef Peter.* HT. (Ketten Bros., 1929.) Ruth × Frank W. Dunlop. Bud long-pointed to ovoid, opens well in all weathers; flower extremely large, double (50 to 65 petals), very full, intensely fragrant, pale blush, reverse mauve-rose, borne singly on long, strong stem. Foliage dark sage-green, disease-resistant. Vigorous, upright, branching; continuous bloomer.

*Mme. Andre de Halloy.* HT. (Ketten Bros., 1929.) Gloire de Hollande × Benedicte Seguin. Bud egg-shaped, opens well in all weathers; flower large to very large, very double (more than 60 petals), cupped, slightly fragrant, orange-cadmium, reverse salmon-pink, borne on long, strong stem. Foliage abundant, brilliant dark green. Very vigorous, branching; profuse bloomer. Very hardy.

*Mme. Gabriel Hanra.* HT. (Ketten Bros., 1929.) The Adjutant × K. of K. Bud long-pointed, of exquisite form, opens well in all weathers; flower large, double (25 to 30 petals), full, cupped, very lasting, slightly fragrant, strawberry-red, shaded with carmine-purple, borne singly on long, flexible, upright stem. Foliage sufficient, large, bronzy Quaker green, disease-resistant. Growth vigorous, upright, bushy; profuse, continuous.

*Mme. Gaston Nocton.* Poly. (Soupert & Notting, 1928.) Amaury Fonseca × Jeanny Soupert. Flower large very double, full, white with flesh-pink center, changing to pure white when opening, borne in clusters. Growth vigorous, bushy, free-branching, dwarf; very free, continuous.

*Mme. Gustave Soupert.* HT. (Soupert & Notting, 1928.) Augustus Hartmann × Souvenir de Georges Pernet. Bud long-pointed; flower large, full, moderately fragrant, purplish pink, with vivid center, reverse glowing silvery carmine, richer and more pronounced at base. Very vigorous; profuse bloomer until frost.

*Mme. Soledad de Ampuera de Leguizamon.* HT. (Soupert & Notting, 1928.) General-Superior Arnold Janssen × Mrs. E. G. Hill. Bud very large; flower enormous, double, full, cupped, intensely fragrant, hydrangea-pink with shining center, reverse carmine-rose. Foliage dark green. Growth vigorous; profuse bloomer.

**Princesse Stéphanie de Belgique.* HT. (Soupert & Notting, 1929.) Gen. MacArthur × unnamed seedling. Bud medium size, long-pointed; flower large, double, full, globular, very lasting, intensely fragrant, carmine with deeper center and dazzling reflexes, borne singly on long stem. Foliage abundant, light green. Growth vigorous, bushy; profuse, continuous bloomer from May to November. Sometimes tips freeze and at other times uninjured, depending on season.

**Souvenir de Jean Soupert.* HT. (Soupert & Notting, 1929.) Ophelia × Feu Joseph Looymans. Bud very large, long-pointed; flower very large, semi-double, cupped, lasting, intensely fragrant, golden yellow, borne singly on long stem. Foliage abundant, large, bronze-green, leathery. Growth vigorous, upright; profuse bloomer from May to November.

*Teresa Finotti-Masieri.* HT. (Ketten Bros., 1929.) George C. Waud × Souvenir de Gabriel Luizet. Bud opens well, long-pointed; flower very large, beautifully shaped, full, double, high-centered, brilliant purple-rose, with bright rosy scarlet reflexes, slightly bordered with soft yellow, reverse of petals clear rosy scarlet. Vigorous, branching; profuse

## AUSTRALIA

*Agnes Barclay.* HT. (Alister Clark; intro. by N.R.S. of Victoria, 1928.) Bud well-shaped; flower tea-scented, yellow and reddish salmon tints Growth vigorous (3 ft.)

*Busybody.* HT. (Alister Clark; intro. by Hazlewood Bros., 1929.) Georges Schwartz × Lena. Flower small, rich chrome-yellow. Growth vigorous; very free bloomer.

*Golden Dawn.* HT. (Grant; intro. by D. Prior & Son, 1929.) Elegante × Ethel Somerset. Bud rich sunflower-yellow, flushed old-rose; flower double (45 petals), well-formed, sweetly fragrant, sunflower-yellow, passing to lemon-yellow with age. Growth very vigorous; profuse, continuous bloomer. Certificate of Merit, N.R.S., 1929.

*Lady Fairbairn.* HT. (Alister Clark; intro. by N.R.S. of New South Wales, 1929.) Mme. Abel Chatenay × a "Glenara" seedling. Flower a beautiful shade of pink, on strong stem.

*Joyce Fairey.* Cl.HT. (Alister Clark; intro. by N.R.S. of Victoria, 1929.) Type, Paul's Scarlet Climber, but flowers larger, sweeter, and a softer red that does not fade. Foliage sufficient, healthy. Growth very vigorous. First Prize as best seedling of Spring Show, N.R.S. of Victoria, 1929.

*Mrs. Albert Nash.* HT. (Alister Clark; intro. by N.R.S. of Victoria, 1929.) Flower well-formed, slightly incurved, sweetly fragrant, dark red, holds its color well, borne on long, strong stem. Foliage good, black-spots. Growth vigorous; free.

*Peggy Bell.* HT. (Alister Clark; N.R.S. of New South Wales, 1929.) Type, Betty Uprichard in color, but more free and solid. Growth vigorous. Flowers held well and very striking.

## SPAIN

Gold Medal Roses: *Diane de Broglie*†, *Duquesa de Penaranda*†, *Golden Gleam*§.

**Magdalena de Nubiola.* HT. (P. Dot, 1930.) Lí Burés × Mari Dot. Bud large, long-pointed, coral; flower large, semi-double, high-centered, lasting, slightly fragrant, salmon-rose. Foliage sufficient, large, glossy. Growth moderate, bushy; continuous bloomer.

## DENMARK

**D. T. Poulsen.* H.Poly. (D. T. Poulsen, 1930.) Orléans Rose × Vesuvius. Bud medium size, globular; flower medium size, semi-double, open, very lasting, slightly fragrant, bright blood-red, borne in clusters on strong stem. Foliage abundant, large, dark green, leathery, disease-resistant. Growth very vigorous, bushy; profuse bloomer from June to October. Tips freeze. Certificate of Merit, N.R.S., 1929.

# Roses Registered in 1929-1930

*American Pride*, HT., by Nicholas Grillo, Milldale, Conn.

*Baby Mine*, Poly., Ralph S. Moore, Visalia, Calif.

*Climbing Briarcliff*, Cl.HT., by J. Parmentier, Ossining, N. Y.

**Ellen*, HT., by Lee C. Gould Co., Inc., Chicago, Ill.

*Gypsy Queen*, Mult., by Ralph S. Moore, Visalia, Calif.

**Harison Lemon*, AB., Stephen F. Hamblin, Lexington, Mass.

**Harison Salmon*, AB., Stephen F. Hamblin, Lexington, Mass.

*Kathryn*, HW., Ralph S. Moore, Visalia, Calif.

**Mrs. Pierre S. du Pont*, HT., by Conard-Pyle Co., West Grove, Pa.

**New Dawn*, HW., by somerset Rose Co., New Brunswick, N. J.

**Président Briand*, HP., by Conard-Pyle Co., West Grove, Pa.

**Rio Rita*, Jos. H. Hill Co., Richmond, Ind.

**Susan Louise*, H.Gig., Charles E. Adams, San José, Calif.

**Souvenir de Shelby Wallace*, Mult., by Ralph S. Moore, Visalia, Calif.

*Indicates in process of registration.

†See p. 223. ‡Not disseminated yet. §See p. 234, 1928 Annual.

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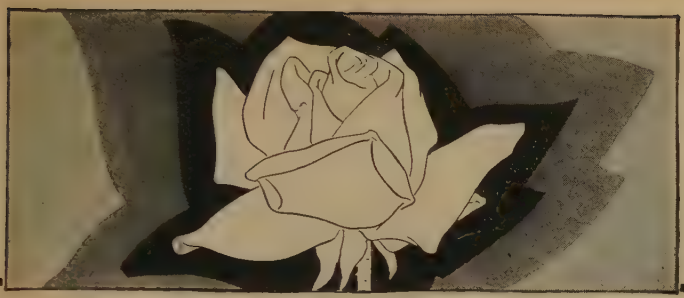

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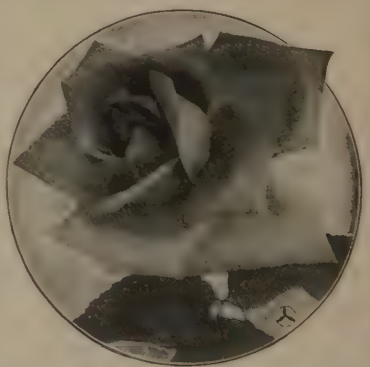

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